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"Quantam ego quidem video motus morborum fere omnes a motibus in systemate nervorum ita pendent ut morbi fere omnes quodammodo Nervosi dici queant."—CULLEN'S NOSOLOGY: BOOK II P. 181—EDINBURG ED., 1780.

THE  
**Alienist and Neurologist**

A JOURNAL OF  
Scientific, Clinical and Forensic  
*NEUROLOGY AND PSYCHOLOGY,  
PSYCHIATRY AND NEURIATRY.*

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Intended Especially to Subserve the Wants of the  
General Practitioner of Medicine.

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**VOLUME XXXV.**

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CHARLES H. HUGHES, M. D., Editor and Publisher.

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3858 West Pine St., ST. LOUIS, MO.

1914

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1914

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## WASSERMANN REACTION IN DEMENTIA PRAECOX\*

BY MAX A. BAHR, M. D.

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**S**INCE the establishment of complement fixation in the diagnosis of syphilis, a new avenue of research has been opened in psychiatry and there have been wide-spread and awakening revelations made, as to the part that syphilis plays in this particular field of medicine. Especially has this been true of one type of psychosis, namely: general paralysis of the insane.

The intricacy of the structure of the brain, the organ of the mind, has always tended to retard definite conclusions in the field of psychiatric research, but in view of the facts revealed by modern medical science, we are better able to understand the close alliance of syphilis with many heretofore obscure psychical and neurological conditions. Research along this line has recently led to the finding of the *treponema pallidum* in the parietic brain by Noguchi.<sup>1</sup> Although there was much cumulative evidence that some sort of causative relation existed

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\* Read at the annual meeting of the Alienists and Neurologists of the U. S. A., Chicago, June 23rd, 24th and 25th, 1913.

between paresis and lues, we were still in darkness until this fact had been more definitely established. Only by work along this line in other psychoses will we be able to fathom the true nature of psychic diseases and not alone by clinical investigation.

Dementia praecox is not merely a condition as was thought by Pick, who first used the term in 1891, and whose ideas were later developed and expanded by Kraepelin, but is a morbid entity, and as distinct a form of dementia as is paresis.

Although dementia praecox has many of the features of a purely developmental anomaly, on the other hand, pathologically and clinically it has many of the features of a true disease. The pathology has as yet shown nothing pathognomonic, for in fact there is but little pathology of mental diseases aside from dementia paralytica, in which condition certain histological changes have been observed. Changes have been found by many investigators, but so far nothing distinctly characteristic, and it has not as yet been possible to make a positive diagnosis from the pathological findings alone. Chiefly from the work of Alzheimer there is much evidence pathologically of an active process as well as clinically from the fact that the onset of the disease is at times rather sudden. It progresses and has remissions. It may be checked and recoveries may even take place. Often we find physical disturbances, such as cyanosis, edema, increased reflexes, muscular irritability, disturbances of nutrition, menstrual disorders, abolition of cutaneous reflexes, and great variations in the reaction of the pupils to light and accommodation. It also presents true psychical disturbances and may terminate in a complete destruction of intelligence, which has a resemblance to, and really is, the epilogue of a true disease.

Studies in metabolism in this disease have been many. The blood has received attention. Every constituent of the urine has been estimated, and wide-reaching conclusions drawn. The various glands with internal secretions, especially the thyroid and suprarenal glands,

have furnished ready material for hypothesis. Most noteworthy has been the chemical analysis of brains as studied by Koch,<sup>2</sup> in which he revealed a variation in the neutral sulphur fraction; in other words, a difference in chemical composition of a nature not so far observed in other forms of insanity, or in cases free from mental disease. Research however, along all these lines has as yet not come any nearer the solution of this problem.

The causes usually assigned as productive of dementia praecox are very numerous, as, psychogenic, hereditary, toxins, exhaustion, puberty, auto-intoxication, etc. It matters not how we consider this disease, be its pathology acquired or be it developmental, the various pathogeneses have up to the present time been nothing more than hypothetical conjectures.

Meyer,<sup>3</sup> in his masterful studies of the psychogenic theories of dementia praecox, admits that they do not explain the basic factors of the disease, for, back of all as to the question of ultimate cause, we are left in a purely speculative position.

He believes, as you know, that dementia praecox is a disorder in which there are certain types of reaction which are almost pathognomonic, and that these types are an inevitable and natural development from the deterioration of certain habits; and this deterioration is due, partly to developmental defects of the mental endowment; and in part at least, to a clashing of instincts and to progressively faulty modes of meeting difficulties.

There is no question that the dynamic value of psychic factors in the reactions of these patients is of the greatest importance, but they are not the fundamental factors which explain the changes of reaction type which are noted in dementia praecox.

Kraepelin's hypothesis that dementia praecox is due to an auto-intoxication produced by poisons which are elaborated in the sexual organs, has had many advocates, because of the frequent appearance of the disease during puberty, the disturbance and variations that it determines in the generative functions, and on account of the in-

frequent occurrence of the specific syndrome in aged persons.

That dementia praecox is not a reaction entirely to external etiological factors, but is rather, at least in part, an endogenous degeneration which represents the loss of adaptability to environment, has most ably been brought out in the work of Hoch.<sup>4</sup>

The work of Jung is admirable. His conception of this disease is that it is largely of a psychological nature. He has shown that the symptoms consist in the outcropping, in a peculiar, distorted and frequently symbolic form, of the thoughts, ruminations and longings of the individual, and on analysis of the individual's life, we find that these elements have been a disturbing factor throughout, and this disorder appears to arise in individuals of certain temperamental peculiarities.

Recognition of the defective constitutional make-ups in these cases has not as yet thrown any light on the etiological factors in the production of this so-called dementia praecox soil.

Endogenous causes which are connected with the individual constitution, are operative in any environment, and if they are traced back to their origin in the ancestry, it is seen that they also come from without, and that they are ultimately not essentially different from exogenous causes.

It appears to me that in the consideration of the etiology of any mental disease, we are dealing largely with the etiology of the predisposition, and direct causes, no matter how far reaching they may be, are not able to call forth a mental disorder without this predisposition.

Under the same conditions of environment there are those who become insane and those who do not. The delirium of typhoid fever and of other infectious processes is not merely an expression of the severity of the infection or of the degree of the fever; it is also in part dependent upon the manner in which the brain reacts, or the physical or psychical personality of the patient.

These diathetic predispositions have their origin

somewhere and behind all this there lies a hidden cause which is producing these conditions.

The chemistry of the brain is as yet too little known to materially aid us in explaining certain organic pathological changes noted in this disease, and it appears to me that the destructive brain changes noted, are the cause of the manifestations observed in dementia praecox rather than the result, as is believed by some, for we know that clinically such manifestations are not present in normal individuals.

As I have already stated, this psychosis is considered by some a purely developmental anomaly, and although it may be considered as such in its incipency, during the course of the acute phase of the disease, there is in a sense an active process going on, which is directly responsible for the neurotic decay which has been found in its pathology. The pathological anatomy, although as already stated, not pathognomonic, reveals three different types of lesions, namely, those of congenital abnormalities, those connected with the onset and course of the disease and consisting of a granulo-pigmentary atrophy of growth of neurones, and those changes observed in other parts of the organism. The localization of these lesions being more pronounced in the association paths, as first noted by Alzheimer, explains in a manner the chief symptom of the disease, namely, the dementia, which in all probability is due to a loss or degeneration of paths of connection between the cells of the cortex of the brain which interferes with a free communication of these cells with each other.

We know from our observation of syphilitic changes in other conditions, that hereditary syphilis acts in a three-fold manner. At times it calls forth specific changes in the brain, as gummatous processes in the cerebrum and meninges, hydrocephalus, etc; at times it brings about diffuse so-called non-specific alterations, which resemble the acquired parasymphilitic conditions, and then finally a general retarded developmental condition which fundamentally in many ways resembles just what we have been



able to note in the pathology of dementia praecox.

In the first two conditions the Wassermann reaction has been found positive quite regularly in the serum and fluid by Lippman,<sup>5</sup> and Ziehen,<sup>6</sup> and it was also observed by the former author that in long existing hereditary syphilis the Wassermann test finally gave negative reaction.

I contend that it is just these long existing hereditary cases, and especially where syphilis is or has existed in an attenuated form, that is the basic factor in the production of the dementia praecox soil, in quite a large per cent. of these cases.

With the finding of the positive Wassermann reaction in a certain percentage of cases of dementia praecox, I believe we have the clue to a nearer solution of the question as to the etiology and nature of this disease than we have ever had before, notwithstanding, the most extensive and exhaustive research into its etiopathology along other lines.

Although the specificity of the Wassermann reaction is at the present time quite well established, it must be taken into consideration that this reaction has been noted in other conditions than syphilis, and also that different investigators differ widely, and in fact report almost contradictory results. Thus, Plaut,<sup>7</sup> in examination of the blood serum in one hundred and fifty-nine cases of paresis, found a positive reaction in 100 per cent, while other equally competent investigators as, Nonne, Marie,<sup>8</sup> and Levaditi,<sup>9</sup> obtained positive findings in from 59 to 90 per cent.

As yet the efficiency of the Wassermann test has not been improved so that in every case of syphilis, be it acquired or congenital, active or latent, a positive reaction is obtained; so that as a diagnostic means a negative reaction offers no guarantee of the absence of luetic infection.

Since Noguchi and others have been able to obtain the spirochaeta pallida in pure culture, it is to be hoped that an antigen prepared from such culture will be efficient

in complement fixation in syphilis, and will make it possible to consider the test as a true antigen-antibody reaction. Although this as yet has not been practicable, it is not absolutely essential as other spirachaetal diseases as framboesia, sleeping-sickness, etc., in which also positive reaction has been noted, are not contenders in this country in the diagnosis of syphilis.

The other diseases in which the reaction occurs can as a rule be easily differentiated, and the numerous discrepancies that have been noted at times, may generally be attributed to numerous possibilities of error due to the complexity of the technique of the reaction. It must also be borne in mind that by varying the proportions of complement or of the haemolytic amboceptor, it is possible to make the reaction more or less sensitive, although its reliability is not altered.

The following are some of the diseases in which a positive Wassermann has been noted by various workers:

Marchildon<sup>10</sup> has observed it in malaria, recurrent fever, appendicitis, cancer and typhoid. Welchmann and Meier,<sup>11</sup> have reported positive results in leprosy. Halberstaedter, Mueller and Reiche<sup>12</sup> have reported reaction in measles, varicella and pertusis. Semon<sup>13</sup> has found it present in eclampsia and Boas and Peterson<sup>14</sup> have noted it in patients following chloroform narcosis. Boehm<sup>15</sup> and Reinhart,<sup>16</sup> in cases of malaria and beriberi; Newmark,<sup>17</sup> in gliosarcoma of the brain; and Kaplan,<sup>18</sup> in cases of jaundice. Citron,<sup>19</sup> Collins and Sachs,<sup>20</sup> have noted positive findings in aortic insufficiency, and Major,<sup>21</sup> observed it in twenty-one out of twenty-two cases of aneurism, mostly of the aortic arch. Simon,<sup>22</sup> also has observed in a not inconsiderable number of cases a positive reaction in cancer.

We must also take into consideration that the finding of the Wassermann reaction in certain conditions and diseases, does not necessarily exclude syphilis, as many cases cited above, especially those of aortic insufficiency, aneurism and jaundice, are of probable syphilitic origin,

although the patient may not necessarily give a luetic history.

With the exception of the conditions noted, the consensus of opinion is, that when the positive Wassermann is found on repeated examinations by competent trained laboratory serologists, the individual has been infected at one time or other by the *spirochaeta pallida*, and still either harbors the active foci of the syphilitic agent or syphilitic products, irrespective as to whether the clinical symptoms are only very slight or are not present at all.

In formulating the following statistics, the blood was examined by the Wassermann test in two hundred and fifty two cases of dementia praecox, and simultaneously with this, the test was also applied to the cerebrospinal fluid in ninety-five of these cases. In the latter the fluids were examined by lumbar puncture, from five to ten c.c. being removed and the patient confined to bed for twenty-four hours after the operation. In two of the cases we noted quite serious collapse and the patients were not able to be out of bed for ten days or more, but in the remaining cases, aside from a slight headache, dizziness and occasional vomiting, there were no ill results.

The butyric acid and ammonium sulphate tests of the fluid were also made, as was likewise a cytological count for the estimation of lymphocytosis.

The cases to which these tests were applied were all well recognized types of this psychosis and represented cases which had been received in the Central Indiana Hospital for the Insane within the past six years. None of the older cases of the so-called secondary dementia, which could possibly be considered as cases of dementia praecox, were included in this series of investigations. Furthermore, all specimens that presented a reaction merely faintly positive were counted negative in order that our estimates might be as nearly accurate as possible.

Specimens of some cases that were questionable were



repeatedly examined, and also new specimens obtained until an accurate and definite conclusion could be reached. Also parallel with these experiments, we tested out for control some normal sera and fluids, as likewise the sera and fluids of from ten to twelve cases of syphilis or paresis which we knew to give a positive reaction.

The principle of complement fixation in the diagnosis of syphilis as taught by Wassermann, is so familiar and the technique so well known that it is unnecessary for me to enter into the details, either of its original form or its later modification.

The Noguchi modification of the Wassermann was used in making these tests as we consider it one of the most accurate complement fixation tests for syphilis, as well as one of the most convenient. We used antigen prepared from non-syphilitic tissue, beef heart being employed.

The Noguchi butyric acid test was also applied, in which one part of spinal fluid is mixed with five parts of a ten per cent. butyric acid in physiological salt solution. This mixture is heated to boiling and immediately one part of four per cent. sodium hydrate solution is added and the mixture again boiled for a few seconds. We used from one-half to one c. c. of the spinal fluid in a large test tube. In this test the presence of an increased content of protein in the fluid is indicated by the appearance of a granular or flocculent precipitate, which gradually settles under a clear supernatant liquid. This precipitate appears within a few minutes in a specimen containing considerable increase in protein, while two hours may be required to obtain a distinct reaction in specimens weaker in protein. Normal fluid may give a turbidity, but the granular precipitate does not occur at all or only after many hours. This protein, called by Noguchi euglobulin, was not observed in a single case.

In several cases the Robert's nitro-magnesia test for albumen was made and an increase of albumen was noted in some cases. This finding was estimated by the appearance of the ring. Normally the fluid contains a very

small amount of albumen, so small that the reaction by this test is always very faint.

The Ross-Jones test we found very satisfactory. In this test clear cerebro-spinal fluid is cautiously added to a saturated solution of ammonium sulphate in such a manner, that the fluid lies on the reagent without blending with it. If the reaction is positive, at the junction of the two fluids, a definite, sharply defined, thin, white film forms immediately, or almost immediately, which, when looked at against a dark back-ground has very much the appearance of a cobweb. This test was found positive in two cases and one of these also presented a positive Wassermann in the blood and fluid.

The cell count was made by the French method in which three cells or fewer in an oil immersion field (1/12th oil immersion objective, 1 inch eye piece B.L.) was considered normal; four to six cells slightly positive; seven to twenty moderate increase; and twenty to one hundred and fifty decidedly pathological. The fluid was centrifuged in a pointed tube for about one hour, and the supernatant fluid removed. The sediment from the lower end of the tube was then obtained by a pipette and distributed in drops on slides. It was dried and fixed for ten minutes in absolute alcohol, when the specimen was stained and washed thoroughly in distilled water. As some of our specimens became unavoidably mixed with blood, the count could only be satisfactorily made in sixty-seven of the ninety-five cases, of which number only three cases, or 4.4 per cent., showed a count over six cells per immersion field. The estimation of the pressure of the fluid was only approximate, as it was merely made by the number of drops per minute, a water or mercury manometer not being at hand. An increase was noted in seven cases, or 7.3 per cent.

The following are the results of the Wassermann test applied to the sera and fluids:

TABLE I  
WASSERMANN TEST APPLIED TO THE BLOOD  
DEMENTIA PRAECOX

Positive	81 cases
Negative	171 cases
Total	252 cases
Total per cent. positive	32.1

TABLE II  
WASSERMANN TEST APPLIED TO THE CEREBRO-SPINAL FLUID  
DEMENTIA PRAECOX

Positive	10 cases
Negative	85 cases
Total	95 cases
Total per cent. positive	10.5

TABLE III  
WASSERMANN TEST POSITIVE IN BOTH SERUM AND BLOOD  
DEMENTIA PRAECOX

Positive	3 cases
Negative	92 cases
Total	95 cases
Total per cent. positive	3.1

Out of 252 sera examined, the Wassermann was found positive in 81 cases and negative in 171, representing 32.1 per cent. positive.

Of the 95 cerebro-spinal fluids examined, the Wassermann was found positive in 10 cases and negative in 85 cases, thus representing 10.5 per cent. positive.

In 3 cases, or 3.1 per cent., the reaction was found positive in both blood and cerebro-spinal fluid.

In 2 cases of this series, we were able to obtain a positive history of acquired infection after the psychoses had already been initiated.

One was a female, 19 years of age, who had come to this country at the age of 15 and was employed as a domestic. She was brought over by some tourists and after she had been here a short time, there was noticed quite a change in the patient which was attributed to home-sickness but which in reality was the beginning of her psychosis. She manifested numerous hallucinations, was apathetic and indifferent and at times catatonic and would frequently break out in childish laughter and become impulsive. The infection took place about two years after the onset of the psychosis and the patient was admitted to the Central Indiana Hospital, December 21st, 1911. Traces of occult blood were noted in the feces.

The other case was one of a young man 25 years of age who developed the psychosis while serving in the U. S. army, and who after its onset became infected with syphilis.

One patient who presented a pronounced positive reaction in both serum and fluid was one whose father was syphilitic and who later developed tabes. He committed suicide when the patient was but five years of age. The mother died of heart trouble and was known to have had several miscarriages. Two brothers are reported living and in good health; one sister is of decided neurotic temperament, nervous, introspective and depressed.

Another patient of this series is one whose father is a paretic in our institution at the present time.

Only one patient of this series presented a positive Wassermann reaction in both serum and fluid, a positive

ammonium-sulphate test, heightened pressure and an increase cell count. This patient, a painter, was admitted to the Central Hospital, September 12th, 1912, with a picture of a well advanced catatonic type of dementia praecox. Little of his early life could be learned, excepting that he had always been very irregular in his habits, and that he at one time had had lead poisoning with wrist drop. He had also been addicted somewhat to alcohol. Incidentally we also noted that since in the institution the patient has had bile pigment and indican in his urine repeatedly.

I believe that the most hopeful lines of investigation are to be found when we consider dementia praecox as essentially similar to paresis, where nerve tissue is destroyed by the presence of poisons, be they exogenous or endogenous in character, and where in the slow deterioration of the nervous system, many mental pictures may crop out, and that it is in the pathological laboratories where further light on the pathogenesis of dementia praecox will be thrown, rather than in the clinical observation of the often vague influence of psychogenic factors.

The manner in which syphilis acts as an etiological factor in these conditions I am not prepared to say, whether we are dealing with the active spirochaetes, a syphilitic antibody, or with old healed syphilitic lesions, in which the active process has long ceased and only the disturbance of function remains, an attenuated virus, or some antitoxin produced in the body in its effort to destroy the spirochaetes.

The finding of the positive Wassermann in dementia praecox in a certain per cent. of these cases does not as yet establish as an absolute fact that syphilis is the etiological factor in the production of this disease. It merely substantiates that the patient is a syphilitic and not necessarily that this syphilis, be it congenital or acquired, is the cause of the psychosis, for there is no law in medicine that a patient may not have two diseases irrespective of each other. However, the finding of the positive Wassermann reaction in a considerable

number of these cases, especially in the cerebro-spinal fluid, signifies at least that the central nervous system is involved. Clinical evidence is not necessary to establish syphilis in these cases. Its presence may be made clear by the reaction as has been the case in the recent investigation of Profeta's law, that a non-syphilitic child of a syphilitic mother does not acquire syphilis from this mother who suckles it; and Colles' law, that a non-syphilitic mother does not contract syphilis when suckling her syphilitic child, whereas a wet nurse does. This shows that the child in the first case and the mother in the second case do not clinically give the slightest evidence of syphilis, yet in both cases give a positive Wassermann reaction and in fact are syphilitic.

May we not view dementia praecox in a similar way? Furthermore, the frequency of dementia praecox in patients of tabetic and paretic parentage, as was specially noted in the study of two thousand cases by Pilcz,<sup>23</sup> is well known, also the history of frequent miscarriages in the mother, children born dead, and also children dying in infancy, and children apparently healthy, but who later present this characteristic deteriorating psychosis, and finally healthy children, suggesting either that in the course of time, the virus becomes attenuated, or that the resistance of the offspring increases in strength, or that both of these processes are in operation together.

If the work of antecedent syphilis were given a most careful investigation in dementia praecox, as for instance, subjecting the parents of these patients to the Wassermann test (a work which we hope to carry out as far as possible), I believe an astonishing amount of evidence will be accumulated which will, in part, at least, clear up the etiological mysticism which heretofore has always shrouded this disease. We will then recognize its true nature and its cause, for not until then will we be able to pave the way to its rational therapeutics and the scientific problems of preventive psychiatry, in a type of psychosis which represents nearly 20 per cent. of the admissions to our institutions.



## CONCLUSIONS

1. A positive Wassermann reaction of the blood in 32.1 per cent. of cases.
  2. A positive Wassermann reaction of the cerebro-spinal fluid in 10.5 per cent of cases.
  3. Butyric acid reaction negative in all cases.
  4. Increase of globulin content in 2.1 per cent. of cases by the ammonium-sulphate test.
  5. A positive Wassermann reaction in both serum and fluid in 3.1 per cent. of cases.
  6. Increased pressure of the cerebro-spinal fluid in 7.3 per cent. of cases.
  7. Pleocytosis noted in 4.4 per cent. of cases.
  8. Parallelism between the Wassermann reaction in both serum and fluid, globulin content by the ammonium-sulphate test, lymphocytosis and increased pressure in one case.
  9. Positive history of acquired syphilis in only two cases and both these contracted the disease after the onset of the psychosis.
  10. Ancestral syphilis in the production of the syphilitic soil is to be considered as one of the etiological factors in the production of dementia praecox.
  11. Clinical evidence of luetic infection is not necessarily present in dementia praecox, for we are probably dealing with syphilis in an attenuated form.
- I desire to express my indebtedness to Dr. George F. Edenharter, Superintendent of the Central Indiana Hospital for the Insane, for his unceasing encouragement of medical research; to the members of the medical staff of our institution for their hearty co-operation; also to Drs. Truman C. Terrell and Ernest D. Martin, pathologist and assistant pathologist, who conducted these serological tests.

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RESCUE:  
THE STORY OF ALBURTUS.

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THE following life-history, unique in its way, records the partial triumph of healthful environment over baneful heredity where, on the one hand, through careful training the best impulses were aroused and constantly fostered by stimulation; while on the other hand, the inherent tendencies, kept in abeyance and guarded from temptation, became in great measure nullified.

Any believer in heredity will recognize that however exceptional this single case of mental defect may appear, yet in event of marriage, the frightful neuroses inherited although dormant in him, would undoubtedly have developed either in modified or exaggerated form in after generations.

The early history shows the father an Englishman, much older than his wife, by trade a house painter, a drunkard, who finally committed suicide, presumably, from family troubles.

The mother, with but little mind, the daughter of a most immoral man, also a drunkard, had a brother who was an expert counterfeiter, two idiot sisters, and another sister—a moral imbecile—well known in the underworld as "The Infamous J. E. of Philadelphia."

Alburtus, the fourth born, had two brothers and one sister, all though physically strong, morally weak.

During infancy and early childhood, suppressed and kept down, starved and neglected, with poor food and

poorer hygienic surroundings, he yet had vivid recollections of his mother frequently giving him beer to keep him quiet.

Why, when, or by whom he was named Alburtus, is not known, but so he was entered on the books of the "Children's Home," when my attention was first called to him.

Coming under my care in his ninth year, a tall, pale, dark haired, dark-eyed, delicate lad, with a record of frequent attacks of catarrhal jaundice, weak lungs, weak morals, and defective nervous system, we classed him a high-grade mental defective with many contradictions. Superficially affectionate with but slight appreciation of values, he would soon forget a kindness conferred; at the same time he would render willing and ready service if called upon.

Given to introspection, moody or full of life, he had periods of dreaminess, enveloped in thoughts which he refused to divulge. Bright in many ways, notwithstanding the history of neglect, he was both indolent and erratic: persistently head-strong and disobedient, particularly in trifling with fire, yet appreciative of a trust committed to him, he could be depended upon in an emergency.

His teacher found him upon entering school, slow and behind others of his class; a backwardness easily traceable, however, to the influences of heredity and early environment. Responding to the stimulation of companionship in congenial occupations, he soon completed very satisfactorily the primary work, making a good record in the 3 R's. Orderly and attentive to rule in school, outside he exhibited a propensity for mischief amounting almost to vandalism. Within the year she reported development in many lines—eagerness in the study of geography, history, and music, showing also considerable facility in sight reading.

Often naughty, his wild escapades continuing—but withal, very interesting and lovable—he got on well with the other boys, and was a leader, although given to perpetual teasing.

Every once in a while sick for a day or two, was given to calling himself "A Delicate Duck," which indeed he proved to be, to such an extent, that he was finally remanded to the hospital for several months treatment. Here a growing appreciation of values is evidenced, as standing one day at a window with a far-away look in his eyes, he said: "What a beautiful place this is, and how lucky I am to be here."

Improving and returning to school, after two years, he is reputed as: "Always quiet, industrious and responsive to training; an earnest reader of good literature, remembering, absorbing and discussing intelligently. Neat in person and clothing, teeth and nails well kept, under military training he has become erect, active, and alert, with firm step, graceful figure and carriage."

Full of fun, he delighted in playing jokes, especially on his teachers. A leader in mischief, responsible for many pranks of others, he required constant supervision.

When fourteen years old—five years after entering the institution—he became a leader in athletic sports, especially baseball, began to play a cornet in the band, reading music with facility and rendering it with unusual precision and feeling, and developed also a fair singing voice of tenor quality.

Growing gentlemanly and well-mannered, his former indolence was replaced by ambition, and he began work in the printing office, and setting type rapidly and accurately, he soon became a careful proof-reader.

As he awakened sexually, he became curious regarding the origin of life, and asked many embarrassing questions; and others, showing a philosophic trend of thought, such as: "If God made the world, who made God? Why do we not build boats shaped like fish? If they can swim, why can't a boat?"

Out of school hours, or when unemployed, he was a regular "dare-devil." There was no prank too wild; absolutely nothing he would not attempt. Always polite when rebuked and reasoned with, he would listen attentively, simply smile, and go away to perpetrate some act

of lawlessness hitherto undreamed of.

Nothing seemed to make any impression, except constant congenial employment and perpetual safe-guarding—exercise, amusement and companionship being equally essential.

In matters of discipline, therefore, our hands were tired. His food could not be cut down since rapid growth, (leading ultimately to the attainment of over six feet in height) had already diminished, both flesh and appetite, so that very slender, and a dainty eater, he required special diet.

This state of things continued until the close of his fifteenth year, after he had worn everyone out trying to help him, it now became evident that he must help himself and control his propensity for vandalism; and thus he was told: "We have tried everything for you and failed. Now it remains only to put you some place where you can give no more trouble." At once he became serious and replied: "Just wait, I'll tell you! I think I have musical talent, and if you will get me a violin and a teacher, I will be good, and you will have no reason to complain of me again." And I never did!

Ready to grasp at anything and to try any experiment, I secured a young man, who, meeting the occasion exactly, proved just what was wanted as a teacher, companion and guide. As soon as he was installed the regeneration began, and progress was assured and upward. With thoughts and energies once directed into the new and healthful channel, that he himself was clever enough to recognize, Alburtus practised faithfully, devoting every spare moment to his instrument, so perseveringly and enthusiastically, that within a year his teacher told me frankly that he had accomplished all he could for him in preparation for the advanced training, which his really exceptional talent demanded and suggested that I give him the advantage of study with a violinist just coming into notice.

At the end of two years this teacher gave the same report as had his predecessor; that his pupil had gone

as far as he could take him, and urged that he might enter the class of one of the truly great violinists of the country. At first this artist refused, feeling that the training of an abnormal of whatever degree of talent, was more than he cared to undertake. But after hearing Alburtus play, he not only reversed his decision, but became eager for the experiment, and, taking him at a very great reduction, worked with him for three years, at the end of which time he returned to me a young man, well equipped to teach my violin class, and lead my orchestra, both of which he did exceedingly well. His repertoire, popular and classical inclusive, ranged from dance and rag-time up to Lange, Rubenstein, and Mendelssohn, but he was fondest of Greig and Chopin; and never content to rest on his laurels, was always looking higher.

In connection with other work he took up the clarinet, on which, his early training proving invaluable, he made wonderfully rapid progress.

And so he grew in knowledge and in favor with all, his whole nature softened and attuned to the harmony of life.

During vacation periods he rendered efficient service as director of the printing staff, and also of the band practice. A sudden and severe attack of neurasthenia—characterized by irritability and depression, alternating with short periods of brightness and nervous excitement—caused him, just at this time, to lose interest in everything—work, athletics and even music. Disturbance of emotional equilibrium was evidenced in loss of power of concentration and appreciation, so that the gentle nature became apparently cold, inert and irresponsible.

Responding, however, to treatment, he gradually built up, and again became interested in work—printing, carpentry, photography and music practice. The additional stimulant of athletic exercises, and long walks with prolonged periods of rest—retiring early and rising late—at last enabled him to approximate normal conditions.

In his twenty-second year, he was advanced to the position of attendant in charge of a club of small boys,

discharging his duties most satisfactorily, both as a leader and companion to the boys devoted to him.

Careful of his earnings, while enjoying excursions from time to time, and presenting always a good appearance, he was at this period in no sense wasteful or extravagant, until he had accumulated quite a little, his bank account amounting to some five hundred dollars.

Then, suddenly showing the instability and contradictory nature of his class, he began to spend without limit or reason, and whether for the mere excitement of money-spending or the novelty of it, he became a veritable spend-thrift, until fifty dollars was all that remained of his savings. With the single exception of his beloved violin, for which he gladly paid a high price, he bought without aim or object—cheap watches, silver match-boxes, patent medicines, for which he had no use, books, some relating to sexology, others to fishing and gunning in neither of which latter had he any experience.

His varied musical ability had become an important factor in our regular entertainments—dances, concerts and theatrical performances; and in the latter always taking leading parts: Indeed with such marked success that with a natural longing for “beyond the beyond” he now conceived an unquenchable desire to become a professional actor.

Willing to allow the trial (although disapproving and warning him at the same time of *inevitable* disappointment) I made arrangements for an interview with Mrs. B..... a favorite actress noted for her careful discrimination of character, her excellent companies, and the high standard maintained in her plays.

Advised of his pathetic history, she recognized in him a psychologic study and, pleased with his attractive personality, became so interested that she promised him the first vacancy in her company, for which he might be adapted.

Some months later, upon reviving one of her most popular plays, she sent for him. He responded and, in a very small part, gave entire satisfaction. When at



the close of the season, he thanked her for her kindness, she replied: "Try hard Alburtus; work hard; and you will get on." And he did strive to follow her advice, but the loneliness of a great city made him homesick for Elwyn and familiar environment, and returning, he was glad to fall into old traces amid the comforts and protection of community life.

At the end of two years, however, again came the lure of the foot-lights, and he secured a position in the company of a mediocre star touring the smaller towns of the west. Unfortunately, however, lacking both the education and discernment of the other lady, as well as discrimination, she gave him a leading part, to which he was not equal, and here he met the disappointment of which he had been warned. Failure in one way, however, proved a success in another by revealing to him his limitations, and he was glad to return to live on in his own environment, fully assured that for him, there was no place like home.

And well it was for him, for to one of his naturally delicate constitution any sudden strain, or prolonged depression, might have resulted in entire collapse, the condition of throat and lungs, liver and nerves, all presaging possibilities of a general collapse. Safe-guarded from this in a home atmosphere where any indisposition met prompt attention, his life prolonged found contentment in work and in music, a happiness he ever loved to share. Indeed with him, this giving pleasure to others, being a veritable religion, love was truly the fulfilling of law.

And so he lived on for five years beloved by all his associates, when in his twenty-ninth year, at the close of the preparations for Christmas—the rehearsals for choral services and the operetta in which as usual he was a leader—he suddenly succumbed to an attack of pneumonia. All watched anxiously for his recovery, but the collapse at last had come; there was no possibility for recovery; the springs were dry.

And as the evening shadows gathered, the light of

life flickered, and the wearied heart beat more slowly, until as night fell, he passed down the dim path, and through the portals, to the endless glow of the Eternal City to obtain the Crown of Everlasting Life.

In this review of rescue from the evil consequences of filthy heredity and environment, one cannot fail to recognize that few normal lives in the brief period of their twenties, discover and fulfill more completely life's vocation, accepting without dispute its closed gates, and seeking to develop the best in its open paths, as did this brave son of misfortune.

The query has often been made of him as of others of his class: "Is he feeble-minded? Wherein does his deficiency lie?" The answer for him as for them is: "He lived in the land of innocent and perpetual childhood, the borders of which he never passed." Clever in many things, his musical talent placing him very near if not altogether in the *idiot savant* class, upright and manly in the pathway in which he had been trained and upheld, yet absolutely immature, he often thought as a child and spoke as a child.

Feeble-minded he was beyond a peradventure, and no one recognized it more clearly than did he; especially after his efforts in competition with normal people, and life on the broad highway.

That his deficiency in judgment required ever the protection of rule and regulation he also recognized, and came to rely upon. Had any mischance thrown him out of this atmosphere, as a tool of the vicious, what might not have been his fate, enfeebled as he was, weak of will, and easily influenced? Thus while we cannot but realize that for such a life, early consummation and passing was a merciful dispensation, it lingers with us ever a delightful memory, a memory which has been crystalized in verse by a friend in an apostrophe to

"His Violin."

Thou sad and silent thing!  
Where sleep the strains that gladdened all who heard?  
The joy that poured from every wakened string  
Like song of morning bird?



The muffled pulse of pain—  
The peace, like that of prayer which has prevailed—  
Voices that rang through heart and soul and brain—  
Why has that music failed?

The empty cells and strings  
Give back no answer; but beyond our ken,  
Somewhere in being's range, on unspent wings,  
That music lives again!

*(Mary Hilton.)*

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# CONSTITUTIONAL PSYCHOPATHY IN CHILDREN.

WITH A REPORT OF FOUR CASES.

BY JAMES C. HASSALL, M. D.,

Junior Assistant Physician, Government Hospital for  
the Insane.

Washington, D. C.

“**S**PARE the rod and spoil the child” is sufficient proof that the problem of the care of the child is not new. It is ever before us and constantly demands our attention. Of all individuals born, a certain number, great enough to cause apprehension, are found to differ from the average mentally. In describing their departure from the normal, one has the choice of several terms. In describing their defects in the intellectual fields, we prefer to speak of idiots, imbeciles and morons. This division, one of degree and not of kind, has been made arbitrarily by the use of the Binet-Simon tests to determine the psychological age of children.

Due to their inability to acquire knowledge beyond that possessed by the normal child of two years of age, we classify certain individuals as idiots. These, even with the greatest care, cannot be educated. Those of the next division, the imbeciles, are able to acquire knowledge possessed by the normal child of from three to eight years of age. These individuals are capable of being taught to care for themselves to a certain extent, but they are incapable of leading a separate existence. The morons psychologically are between the ages of eight and twelve; they can be taught to read and write and in some cases to be quite efficient in manual work requiring no initiative. Under the guiding hand of relatives or under the protection of an institution they do admirably

well and are able to earn a livelihood. Left to themselves they cannot cope with the social requirements and are soon a burden on the community.

The above mentioned individuals often show marked defects in their emotional spheres, in addition to their intellectual defect. The former are often shown in periods of excitement with more or less vicious tendencies.

There is yet to be considered another small group of children who are not feeble minded, whose psychological age, by the Binet-Simon tests corresponds to their chronological age, in whom mental symptoms are present, especially in the emotional fields. These are the boys and girls who seem to be normal so far as intelligence is concerned, who seem to have plenty of ability and shrewdness and even cunning, but who lack moral sense, moral judgment, moral stamina, who lack the ability to adapt themselves to their environment, and live a decent life in the society in which they are placed. This group comprises the wayward girl, the incorrigible boy, the ne'er-do-wells, for whom as yet we have found no satisfactory treatment.<sup>1</sup> They are persons who from an early age display some mental defect coupled with strong vicious or criminal propensities on which punishment has little or no deterrent effect.<sup>2</sup> They show weakness of will, violent changes in temper and strong ungoverned feelings, which if allowed to proceed in their growth will undoubtedly develop anti-social instincts and the children possessed of such tend to become criminals, vagabonds, prostitutes, or even insane.<sup>3</sup> According to Ziehen these conditions are spoken of as the Psychopathic Constitution.

Many of these children show what apparently is an intellectual deficiency, but an examination of them proves this to be due to their improper training rather than to an intellectual defect. As a rule they are mischievous, unruly and hard to manage and do not get on well in an ordinary school. Truancy, among them, is very common. Soon they fall behind their class and are a hindrance to the education of others.

It is not uncommon to find that they are children

of parents who are themselves slightly abnormal, or who are unable to care properly for their offspring. The result is that the children do not receive the care and training necessary to save them from their fate. Ill treatment and lack of supervision are often the cause of the child's running away from home. These 'fugues' are a common manifestation of the psychopathic constitution.

On account of their thieving, their tendency to viciousness and to running away, they frequently come under the hand of the law, or are brought to the physician by parents for advice as to their care.

The following cases, which it is hoped, will be of value as examples of the psychopathic constitution, are taken from several which came under the hand of the law and which were committed to the Government Hospital for the Insane for examination, observation and subsequent recommendation to the Juvenile Court.

Case I. P. M. White, male, age 14. Family history was negative regarding alcoholism, nervous diseases or insanity. He is the oldest of seven children. Birth was difficult and delivery was instrumental. There was slight injury at that time to the left side of the skull. He was bottle fed, his mother being unable to care for him on account of illness. As a young child, he was extremely nervous; sleep was induced with difficulty and the slightest sound would startle him so that he would jump out of bed. Since infancy, he has been of a highly nervous temperament. He suffered the usual childhood diseases and made good recoveries. He never played much with other boys, being fearful of getting hurt. He began school at six; never applied himself diligently to the usual studies but was fond of music and drawing. During his stay in the fifth grade, he did not like his teacher, who stated that he was backward in his work solely because he would not apply himself. Frequently he played truant and on account of this he was away from school about one month during the year. While in the sixth grade he left school to go to work.

He first came in conflict with the law by assaulting a smaller boy for which he appears to have had more or less provocation. Later he was arrested for knocking down a girl six years old. One evening he attended a performance at a low grade theatre and with several other boys he awaited the troupe at the stage entrance. He accosted one of the women and accompanied her home, where he was seduced. Following this experience, he twice visited houses of prostitution. His mother once found in his pocket a very obscene note from a girl at school, inviting a visit from the boy. Intercourse with this girl was denied by the patient. On one occasion he left home and spent the night in a hotel in the city. For this he would give no reason. The patient appeared before the Juvenile Court for the third time by having been arrested while trying to sell a suit of clothing belonging to his father, in order to obtain enough money to run away from home to go to a distant city to work.

Mental examination of the boy showed him to be bright and alert, and well oriented. No hallucinations or delusions were present. The result of the Binet-Simon tests showed his age to be 12 plus years. He read and understood difficult passages and impressed one as being of normal intellect. He denied the sexual irregularities as given in the history obtained from his mother. Physical examination was negative. He was well developed and showed no abnormalities or stigmata of degeneration. Wassermann reaction with the blood serum was negative. During his stay in the hospital he was continually in trouble with other patients and bullied the younger juvenile cases on the ward. At times he was impudent and refused to do as he was told. He disobeyed rules by smoking cigarettes and by cursing the other patients and frequently it was necessary to censure him.

Case II. A. S. White, male, age 14. History of grandparents negative concerning alcoholism, mental or nervous diseases. Father is an inmate of the Government Hospital for the Insane, suffering from a deteriorating

psychosis. Mother is of a nervous temperament and appears to be hysterical at times. He is the third child of his parents. Birth was normal, and as a child he was very healthy. He made good recoveries from the diseases from which he suffered in childhood. He was always obstinate and "hardheaded" and never cared for the association of his mother and sisters. He began school at the age of six, attending parochial schools until the present time. He has always learned rapidly and has been a favorite among his teachers. At the age of five he began stealing money from home. This has continued and every year amounted to the sum of several dollars. He always spent the money, sharing it usually with other boys. His mother's first knowledge of his thieving was when he was twelve years old. He stole a large sum of money from her and gave it to another boy. The same year he stole money from her again and went to a distant city, returning willingly with his mother when she went for him. At thirteen he again left home and spent three weeks at a seaside resort. He would not state where he obtained the money for this trip. He returned willingly when funds were sent by his mother. During the present year he entered a home and stole several rings. These were returned to their owner by his mother. Ten days later in company with another boy he was arrested while stealing a slot machine from a store. This led to his appearance before the court.

During his life he has always been easily excited and at such times he has bitten his finger nails until his fingers bled. He denied all sexual habits, although he gave the impression of not being sincere in his answers to questioning along this line. He has had many fantastic dreams during his waking hours. He would imagine himself a millionaire, and has pictured himself the owner of automobiles, houses, etc. He denied the association with a female in any of his phantasies.

Mental examination showed him to be accurately oriented and emotionally indifferent. No psychotic symptoms were present. The Binet-Simon tests showed him



to be of normal mental capacity for his age. Physical examination revealed no abnormality. Wassermann reaction with the blood serum negative.

During his stay in the hospital this patient conducted himself fairly well though occasionally he annoyed the other patients and violated the rules in various ways. At times he appeared emotional, especially when questioned regarding his misconduct and on two occasions he became lacrimose.

Case III. S. M. White, male, age 14. History of grandparents negative. Father has used alcoholic liquors to excess for many years. On this account he was unable to hold any position for a great length of time. He was once arrested for disorderly conduct. When sober he was capable of earning a very good salary. He finally left his family on account of drunkenness. His mother is fairly well educated, gentle and refined. The patient is the sixth child. One brother was reckless and disobedient until he became of age. One sister left home following her mother's objection to her accepting the attentions of several men. She is now believed by the family to be living an immoral life. One son left home and has not been heard from for several years. Patient was healthy until two when he had a bad attack of measles. At three he suffered "brain fever (?). As he grew he became peevish, hard to please and irritable. On this account he was humored by his mother. He began school at seven, at nine he was away from school for sometime with pneumonia. He did not attend regularly and made poor progress. He would magnify slight ailments so that he could remain at home. While in school he was mischievous and disobedient and was often punished. He was finally expelled from school, his teacher having said that he was so bad she could do nothing with him. He stole children's lunches, books, pencils, etc., and teased them in every way he could. He was very rude and impolite to his teacher. His mother tried keeping him at home for a time. He would not obey her and when corrected would run away from home, remaining

away for several days, his mother having no knowledge of his whereabouts. Often he would return home with small amounts of money, saying that he had earned it selling papers, though in reality it was obtained by selling articles which he had stolen. After a time at home, he was sent to another school which he attended for five months, receiving good reports daily. One day he was taken home by an officer who accused the patient of having stolen some fruit from a stand. In April, 1913, he was arrested for beating and dragging a smaller boy across the street. He was placed on probation by the court to which he reported each week. During this time he continued to do bad things; he stole and smoked cigarettes. Several times he was found stealing and committing offenses but for these he was never arrested. His next appearance before the court was caused by his being found in a store stealing candy. He was later arrested for having stolen a purse and two small articles from an office and was committed to the Government Hospital for the Insane for examination. He would frequently lie, especially when questioned about his thieving.

Mental examination elicited no psychotic symptoms. The Binet-Simon tests showed him to have a mental age of 12 plus years. Except for outstanding ears, prominent abdomen and a marked flat foot, patient's physical examination was negative. Wassermann reaction with the blood serum was negative. During his short stay in the hospital, his conduct was not good. He was very nervous and active and always inclined to annoy other patients. At times he was stubborn, cross, noisy and disagreeable, and it was necessary to censure him.

Case IV. B. R. White, female, age 16. Patient's paternal grandfather goes on regular sprees every two or three weeks. One paternal uncle was insane, and was confined in an institution. One maternal uncle was considered erratic. Father uses alcohol to excess and is possessed of a violent temper. Mother is well and her habits are good. Patient was the only child. Birth was uneventful; she was backward in learning to walk. Made

good recoveries from the childhood diseases, from which she suffered. Began school at ten, made rapid progress until she reached the eighth grade, in 1911, when she eloped with a young man whom she married. To do this she misstated her age. She lived with her husband for two weeks. She then visited an aunt for several days. When she returned to her apartments, her husband had left. Returning to her parents she lived with them for a few months. She then entered a school for girls some distance from her home. After a few months here, during which she applied herself very well, she eloped and returned home and obtained employment in a store where she remained two weeks. She then met a young man and was away from home with him for nineteen days. When met accidentally on the street by her parents, she willingly returned home but continued to elope whenever the opportunity presented itself. The last time she eloped was with two young men who took her to a house of prostitution where she remained for two days. When found there by her parents she showed no evidence of shame, seemed unconcerned and returned willingly with them. The next day she was taken before the court and subsequently admitted to this hospital.

Physical examination was negative. Wassermann reaction with the blood serum was negative. Mental examination revealed no hallucinations or delusions. Her responses to the usual intelligence tests were good and there was no mental impairment. Throughout the examination she did not appear particularly interested; frequently she spoke of things of greater importance to her, drummed on the table and hummed tunes. She told of her past experiences willingly and showed no shame or remorse for her actions. During her stay in the hospital she conducted herself well, except on the occasion of a visit from her mother, when she became much excited, abused her mother and called her various improper names.

It is seen that these children are not intellectually defective and have shown no psychotic symptoms. Yet they are abnormal and because of their abnormality

they have come into conflict with their environment. The important question in connection with such children is that of their recognition and their training.

Parents should be taught to seek the physician for advice regarding their children who show an early tendency to incorrigibility, theft, truancy, or to running away from home. Teachers should be on their guard and should report to proper authorities for medical examination, children who show the above tendencies and all juvenile delinquents seen by the court should have their mental status determined. The early recognition of such types in the school should lead, as with the intellectually defective, to the separation of them from the great mass and to the placing of them in the best institution available.

It is an interesting and withal a difficult problem to care for such children and with our present knowledge we cannot offer a full and complete solution of it. In the past, it has been the custom to send these children, when detected in misdemeanors, to penitentiaries or reform schools with the hope of making useful citizens of them. This form of treatment has largely failed. There is no doubt but that the majority of these people in reformatories and penitentiaries could have been spared their crimes against society and their sad fate if proper treatment had been instituted early enough.

As no public provision is made for the care of such children they are most frequently left to their fate. They cannot be cared for in an institution for the insane for they show no frank psychosis. They are mischievous and hard to manage and annoy the other patients. Here, too, they would rapidly deteriorate. An institution for feeble-minded is also not to be considered. These children are not weak minded for examination shows them to be of average intelligence. Their emotion, not their intellect, is defective. With their superior intellect they would instigate all sorts of mischief among their weaker associates.

Many of these children have not proper parental care, so there remains the possibility of placing the child in

another family. The difficulty met with here is to find a home for such a child for most people would not undertake the responsibility of caring for an abnormal individual.

At present we are met with the bare fact—these children must remain uninstructed. They cannot get along in the ordinary schools and special instruction is necessary. They soon fall behind their class and are a hindrance to the education of others. Because of their tendency to disobedience, theft, and truancy, it is frequently necessary that they be expelled from school.

The boarding school where children receive more individual instruction may be of help to some of these cases, but they are in need of training entirely different from that of the normal child with whom they are thrown in contact. The discipline which is proper for the normal child is not proper for the psychopath and he reacts to it with great obstinacy and frequently with an increase of the psychopathic symptoms.

There is need of a special school or institution where such children could be given the proper care and supervision. When the presence of the psychopathic constitution has been determined, the child should be committed to the institution where he should receive a special medical examination. Then considering his individuality, a special plan of treatment should be devised. Each child should be given individual training and uninterrupted oversight until all symptoms of the psychopathic constitution have disappeared. The length of residence in such a school should be determined by the severity of the psychopathic symptoms.

Such problems as are herein presented are pressing for an answer in the general effort to build up the race. Many earnest workers are busying themselves with them and it is hoped that a continued interest will lead to a clearer understanding of the psychopathic constitution and a minimization of the number of failures traceable to it.

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## DEVOTIONAL AND AGNOSTIC PARANOIA.

### PARANOIAC EGOISTIC PSYCHIC ERETHISM

WITH REFERENCE TO THE CANADIAN DUKHOBORTSI.

Dukhobortsic and Scorn Insanities.

By C. H. HUGHES, M. D.,

Retired Dean of Medical Faculties, ex-Prof. Psychiatry, ex-Supt. State  
Hospital for Insane, Ed. A. and N., etc., etc., etc.

St. Louis.

**A**MONG the unstably neuronated, even outside of the asylums, this phase of morbid mental display is common, especially in insanity of the religious emotional type, both in its really devotional and perverse and antagonistic or agnostic forms.

The following illustration and text immediately below, of him that "sitteth in the seat of the scorner" and likewise "writeth," may serve to show two contrasting forms of the unstable psychic neurone as they manifest themselves to the discerning alienist in two unique forms of mental aberration.

Neither of these illustrations show mentally whole and normal character, although the world may consider them sane, because they seem to know what they are about and perhaps to recognize right from wrong in a legal sense. Both illustrations need the care of the alienist physician, at least for the probably plainly paranoiac leaders, for paranoiac leaders may have sane but illogically reasoning adherents as dupes or rather idiotic followers who



can not draw the true lines between sophistic representation and true logical showing. To be acquiescent and imitate others' folly is not necessarily to be insane.

"The Dukhobortsi are a fanatical Russian sect founded in the early part of the eighteenth century by a soldier named Procope Loupkin, who pretended to make known the true spirit of Christianity, then long lost.

"They have no stated places of worship, observe no holy days, reject the use of images and all rites and ceremonies, have no ordained clergy, and do not acknowledge the divinity of Christ or the authority of the Scriptures, to which they give, in so far as they accept them, a mystical interpretation. Owing to their murders and cruelties, they were removed to the Caucasus in 1841 and subsequent years; they now form a community there of seven villages."—(Century Dictionary.)

Further light may be found on the origin of this word by referring to the word in this and other sources.

This illustration of this peculiar paranoiac religious sect represents a number thereof, nude, in cold weather, marching together in Northern Canada, before the Canadian police interfered in behalf of civilization, normal modesty and their sanitary welfare.

It is probable that if Procope Lupkin, the founder of the Dukhobortsi, had been timely subjected to suitable sanitary treatment, including proper and timely emesis and catharsis, right food and sleep and he had come of a stable neurotic heritage, his delusion would not have developed and he would not have misled others. Disease, like toxemia, may develop an insane sophistry; sophistry is morbid delusion when induced by brain disease and delusion, as well as truth, leads people, the former misleading them. Ptomains may breed insanity. They make toxemia.

This illustration had been printed on the reverse side of the card, and sent out with it as an advertisement was the following egoistic, perverse, impious and bizarre epistle of a Canadian photographer in business in a Christian and ordinarily reverent community.

## Muskeg Philosophy

(The Lord's Prayer as Paraphrased by

Our Father who art everywhere, hallowed be thy name; thy kingdom come, thy will be done on earth as it is in other places.

Give us this day our daily bread and pray see that we do not have to work too d——d hard for it.

Forgive us our trespasses as we forgive the son of a biscuit who interferes with our hobbies or treads upon our corns.

Remove out of the world, we pray thee, temptation and evil, then we can not get into them, nor will thou be put to the great trouble of delivering us from them, and in other ways keep us from hitting against anything hard so we can go through this world a pack of weaklings and cowards: for thou art the greatest thing on earth or elsewhere for aught we know.

Do all this if it pleaseth thee and it will please at least ONE of your own making,—Amen and again Amen.

"Photo by \_\_\_\_\_ seen everywhere  
Sometimes he's here and sometimes there.  
in the 50th year of his age.

Both the pictured and the portrayer are sailing in the same unstable neurotic boat and are liable to fall overboard at any time further on into the sea of surely and generally recognized insanity, though neither would consider himself insane.

I once asked a manic depressive at the Fulton, Mo. Insane Asylum what he thought of a certain paranoiac with high ideal delusions of his own religious perfection and the answer was, "O! He is a d—— fool" and the paranoiac opinion of the first one interrogated was that "the other had no sense."

Morbid egoism caused the variant answers respecting each, of the other. In asylums for the insane it is not uncommon for certain inmates to thus concede the manifest insanity of the others while vehemently denying their own mental affliction and they may even believe the entire world is insane concerning themselves.

This record illustrates the fact that insane persons, oblivious to their own insanity, often readily recognize the insanity of others. In fact the insane often regard everybody about them as insane but themselves.



DUKHOBORS LOOKING FOR CHRIST IN CANADA IN WINTER.

"Photo by the undersigned, author of Muskeg Philosophy, whose philosophy here follows in parenthesis."



The picture in the context above, was mailed to the present writer by the author of the above recorded paranoiacally paraphrased Lord's prayer.

Interrogating patients at a hospital for the insane, one may hear a paranoiac, securely credible, but unconscious of his own undoubted dominating delusion, say the other inmates are fools, sometimes with profane emphasis. The author has often noted this, as likewise have most clinical psychiaters. Such insane persons, especially of the paranoiac, paranoid and melancholic type, often make an impression of sanity and unjust restraint upon visitors and before juries and courts and may even sometimes deceive the elect expert in psychiatry, especially if he has not sufficient clinical experience in psychiatry to cause him to watch and wait before deciding, that is, if he has not lived with the insane, visited them sufficiently often to fully understand them in their various moods and actions.

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THE PIONEER FOUNDER OF AMERICA'S  
INEBRIATE STATE HOSPITAL.

MEMORIAL ADDRESS ON DR. TURNER'S LIFE AND WORK.

BY T. D. CROTHERS, M. D.,

Supt. Walnut Lodge Hospital, Hartford, Connecticut.

**A** memorial study of the life and work of Dr. Turner may be compared literally, to that of a picket far out beyond the great army of science, marking out paths, and clearing the way for the advancing hosts to follow.

These pioneer pickets are not recognized in their day and generation. Their work is criticised, condemned and misrepresented. Later when the army of advance moves up and on, they are recognized as the great benefactors and leaders.

My purpose in this address is to briefly summarize the main facts of his history, and follow it with some detailed studies of his particular work and its results.

Joseph Edward Turner was born in Bath, Maine, Oct. 5th, 1822. His ancestors came to this country in 1641. His father was one of the first settlers in that town and was a shipbuilder and farmer.

His mother was born in Ipswich, Mass. He began life as a clerk, studied medicine, was licensed to practice, opened an office in Trenton, New Jersey, about 1841.

Soon after he became possessed with the idea of founding an inebriate asylum, and gave up his work for that purpose. He made three visits to Europe during the next eight years in the interest of this cause. In 1852 he presented a large petition for a charter to build an inebriate asylum in the New York Legislature.

Two years later this charter was granted, and a



stock company organized, called the United States Inebriate Asylum Company, of which he was general manager and treasurer. In 1856 and 57 he secured large petitions to the Legislature of New York for the appropriation for 10% of the excise money to the institution.

In 1858 the city of Binghamton, New York, donated 250 acres of land for this purpose, and the same year the corner stone of the asylum was laid.

In 1862 Dr. Turner married Miss Gertrude, the daughter of Col. Middlebrook, one of the oldest and most respected citizens of Wilton, Conn.

In 1864 the institution was opened for the reception of patients and Dr. Turner was made Superintendent.

In 1867 he resigned and spent several years securing new subscriptions for the completion of the building, and assignment of the original stock. In 1874 he projected the Woman's National Hospital at Wilton, Conn., and in 1881 a charter was granted by the state of Conn., and the same year the ground was broken for the erection of a building.

Three years later the charter was repealed, and in 1888 he issued a volume called "The History of the First Inebriate Asylum in the World." The next year in 1889 he died at his home in Wilton, Conn.

During this period of 47 years his entire time was occupied in the promotion and development of institutions for the medical care of inebriates. He traveled continuously, calling on prominent men, securing their names to petitions, begging material for the building, and planning to perfect the asylum at Binghamton and build one at Wilton, Conn.

It was an incessant preaching and teaching the doctrine that inebriety was a disease and curable in organized institutions, built for that specific purpose.

This most remarkable man and his work can be better understood by dividing our historic study under various topics. First:

#### THE MAN AND HIS PERSONALITY.

Dr. Turner was a man of medium height, compactly

built, with a well formed head, clear cut features and a sharp kindly eye. His manner was intense, sympathetic and attractive.

His language was clear, decisive and the words used were accurate and suggestive. His illustrations were apt and graphic, and his opinions and observations on matters outside of the great theme of his life showed wide reasoning, excellent judgment, and clear recognition of men and events.

He dressed neatly and had a decided business and professional air, and showed an interest in every subject and person he came in contact with.

In the early part of his career he was critical and sharp in his judgment of men and events, but never severe or harsh. Later he became broader and more charitable in his views and opinions.

There was a certain self-confidence and poise in his manner and calm reserve that was not disturbed by outer conditions, and gave the impression of a man of power and force.

He would have succeeded in any position in life, or in any business, and his intense earnestness and ability to adapt himself to all the conditions around him would have brought him into prominence as a leader.

His manner was dignified, sympathetic and intense. He could reach the level of any person into whose company he was thrown. In the presentation of the great purposes of his life he was simply overwhelming, not only in suggestion, but with a flood of arguments, facts and illustrations which were convincing.

There was a certain magnetism about the way in which he presented the facts which grew with every experience, and very few persons could listen to him without being impressed with their reality.

As a preacher this personality would have attracted crowded audiences. As an advocate in courts of law and before a jury he would have forced conviction with every statement of facts, and as a doctor he would have been an ideal man and the center of a large admiring circle.

Unreasoning men judged that this impulsive impetuosity was mercenary, but a closer acquaintance showed the delicate generosity and kindly spirit of a great mind, trying to overcome the confusion and doubts, and make the facts clear for their sake, and not for any ulterior purpose.

The great central thought of his life was to teach the world that the inebriate was diseased and could be cured. He did not repel the moralist who thought the malady was moral, and could be cured by conversion and pledges, but he urged a higher view, and a recognition that the physical conditions and surroundings of the inebriate should be changed and improved, and the poisons from which he was suffering should be removed, and then the moral and spiritual remedies could be applied together with physical agents that would bring about restoration.

He was repeatedly asked to take part in reform work, and his answer was restore the body, correct the surroundings, and then reform work will be natural and real, because the soil on which it must grow has been cultivated.

This idea of physical care and treatment filled his entire waking thoughts, and the dream of his life was an institution where this work could be carried out.

The obstacles which he encountered only intensified his ambitions and gave him greater energy and determination. Having built the asylum at Binghamton and failed to retain control he saw the possibility of building another on a grander scale, and this idea possessed him almost to the verge of infatuation.

THE ORIGIN AND GROWTH OF THE PURPOSES OF HIS LIFE is of great interest and is a repetition of what has been the history of the great pioneers in every advance of science.

Whenever a great truth comes up on the horizon of the world's progress someone appears to teach its practical relation and incorporate it with the evolutionary march of the race.

Someone is always raised up to be a leader and

teacher when the hour comes, and the facts dawn on the advanced movement of civilization.

Over 2000 years ago Ulpian, the great Roman Jurist, urged that inebriety was a disease and should be treated in hospitals, the same as insanity or other illness.

From that time down to 1790 the idea was repeated at long intervals, but made no impression. At this time Cabannis a French philosopher, elaborated this subject at some length, and published it widely.

In 1798 and 1809 Dr. Benj. Rush of Philadelphia, repeated this idea in several articles and books, urging that it was the only solution of the great drink problem.

In 1830 when Dr. Turner was only 8 years old, Dr. Eli Todd of the Hartford Insane Asylum read a paper before the State Medical Society, urging the State to recognize the disease of inebriety and provide special institution for its care.

This paper was widely scattered. Ten years later a student of Dr. Todd's, Dr. Woodard of Worcester, wrote a paper on the same subject, which was very widely circulated. These papers were condemned as impractical, chimerical and attracted little or no attention.

In all probability Dr. Turner in his early student life came across copies of these papers, and any previous convictions he had were stimulated and intensified by them.

In later life he said that as a boy he was called to take care of his uncle suffering from an attack of delirium tremens, and the impression he received at that time was that inebriety was a disease and must be treated in hospitals the same as other diseases.

He referred to another incident in which a warm personal friend under the influence of spirits attempted to do violence to him, and a few hours afterwards recovered, and had no recollection of his conduct or words.

This experience no doubt deepened his previous impressions and convinced him that a new field for the medical treatment of these maladies must be revealed to the world and brought into practical service.

In 1840 the Washingtonian Movement began and

was a great pledge signing crusade which swept over the country. It was estimated that over 5,000,000 persons signed the total abstinence pledge in the course of a few years.

Practical men realized that something more than pledges were needed, and so lodging houses were opened by the Washingtonian Clubs to take care of the poor victims and protect them until they could secure a degree of restoration.

There can be no doubt that this movement was watched with great intensity by Dr. Turner, who saw its significance and realized that it indicated the recognition of the physical nature of the disorder and the coming of inebriate asylums and hospitals where they could be housed and cured.

This thought found abundant confirmation in the penal treatment by the courts, and in the hospital treatment of the more chronic cases, and grew to be a positive conviction, sustained by evidence from every side.

#### THE WORK AND ITS RESULTS

showed that Dr. Turner realized that the idea of an institution must be based on data secured by circulars and was not a matter of opinions, also that the public must be impressed by figures and statistics that would admit of no other interpretation.

Evidently the first work he did was to send out circular letters to physicians, superintendents of insane asylums, prison authorities and others, asking for statistics and opinions concerning the causes and conditions of inebriety, and asking suggestions of what could be used most practically in the matter of cure.

He followed these by personal visits and interviews. In all probability the answers were unsatisfactory, and the cold contempt which greeted him, and indifference showed that the world was not prepared to take up this subject.

He probably realized that American medical men were dominated by teachings and opinions of physicians of Great Britain and on the Continent, and anything

endorsed by foreign authorities would receive the greatest of respect and attention here.

Curiously enough this idea prevailed for more than half a century, but laterly within the last 20 years the reverse is coming into prominence.

This was the purpose of his early visit to London and the Continent sometime about 1841 or 42. He spent his time in visiting hospitals, calling on leading men, securing statistics and soliciting their interest and sympathy to have inebriety called a disease and to urge its treatment in hospitals.

He brought back with him a large number of letters, all expressing an interest in the subject, but in so conservative a tone as to be of little or no value. No doubt these letters aided him in influencing the leaders in the profession of this country. At least they secured respectful attention, but beyond this little of anything was secured.

In 1848 he went abroad again. His visits were practically for the same purpose and extended to many of the large hospitals of the Continent. In 1850 he made another visit to the Continent, bringing back about the same kind of personal endorsement and letters of sympathy.

In the meantime he had kept up circular inquiries, writing and calling on different persons, soliciting their opinions and names on statements as to what was considered the best plans to promote this work.

About 1849 he began a petition for the organization of an institution which was circulated among business and professional men for signatures, and this grew rapidly. The next year it was merged into a stock company, and in the course of a year 140 persons agreed to form a stock company paying \$10.00 a share for the purpose of organizing and building an institution.

Later another petition was signed by several thousand persons and was presented to the New York Legislature asking for a charter for a company called the United States Inebriate Asylum Company.



This petition was opposed and put over. Two years later, in 1852, a charter was granted and the company formed and Dr. Turner was made Treasurer and Managing Director.

In the name of this company Dr. Turner solicited donations of land for the building and by incessant personal effort succeeded in having the city of Binghamton give 250 acres of land for a hospital in the neighborhood of that city.

The ground was broken for the building in the year 1858. In the meantime the board of directors who were very eminent men, and actively engaged in their private duties, were unable to do much more than give their names and influence to help on the work, hence the burden fell on Dr. Turner, who traveled continuously soliciting subscriptions of money and material for the building, securing names to petitions, and influencing the legislatures, and in every way promoting the cause generally.

It was thought best to change the name to The New York State Inebriate Asylum and have laws passed regulating the commitment of cases and placing it on a par with other institutions.

This was secured by Dr. Turner ably, assisted by Dr. Valentine Mott, one of the greatest surgeons in America, who was President of the board of directors.

A monster petition was secured asking the legislature to give 1/10 of the excise money for the purpose of building and maintaining the asylum. This petition received only one vote in the first session when presented.

The next year it passed by an overwhelming majority. This was due to Dr. Turner's personal efforts, visiting every prominent politician and securing the influence of their constituents and endorsement. It was a work that required nearly two years of tremendous effort.

In the meantime Dr. Turner drew the plans for the building at Binghamton and began its erection under his personal care and supervision. He hired the contractors and workmen and secured donations of building material and money, and carried on the work with an energy and enthusiasm that was contagious.

During all this time he secured a petition, signed by over 1500 physicians, 60 leading judges, 600 prominent lawyers and over 5000 business men, asserting the need of such a hospital, and begging the legislature and private individuals and the public generally, to sustain it in every possible way.

This attracted a great deal of attention, and was published in the large dailies. Many of the religious papers opposed it very bitterly, and considered the entire effort an infidel one, to dignify vice and excuse the drunkard, and give sympathy where it did not belong.

The more conservative men agreed that it was wise to make the experiment, and withhold judgment until it had been tested.

The facts were new and the opposition to their acceptance was intense, and the board of directors as well as Dr. Turner himself received large numbers of letters protesting against the effort.

The struggle was to overcome this opposition by letters, personal appeals, visits, statistical evidence, and wherever Dr. Turner went his earnest and enthusiastic presentation of the facts made converts and friends.

The building was projected on a palace-like scale and built in the most substantial artistic way, and there were no debts, the activity of the building depending on the contribution, and finally in 1864, it was so far completed as to be open for the reception of patients.

It was intended to accommodate 300 persons, and was to be equipped with elaborate Turkish and Roman baths, together with a chapel for religious services, and a stage for dramatic and literary entertainments. Workshops, hot houses, gardens and large fields for the cultivation of plants and raising of produce required for the needs of the institution, made it one of the most complete asylums erected at that time.

No patient could be received for less than six months, and military discipline and medical care was to be kept up constantly, and each patient was to be treated as sick,

diseased and requiring the best methods and means of physical restoration.

The opening of the institution brought a large number of incurable inebriates from the wealthy and influential families of the country, and after the first glamor was over, and they had become somewhat restored, they began to rebel against restraint, the methods of management.

Then they appealed to their friends to help them, giving most exaggerated accounts of the superintendent and management. Intrigues of all kinds and efforts to embarrass and to complicate the work was poured in upon the management and board of directors.

It was the experimental stage of a new work, and the public thought that the opinions of patients were entitled to consideration and should be consulted.

Dr. Turner was emphatic in his convictions of what should be done, and the board of management were weak and vacillating. Several of them were intensely selfish and grasping, and tried to make the institution serve their own mercenary ends.

For the next three years a series of the most bitter recriminations between the board of managers and Dr. Turner and the friends of patients who sided with both parties in the controversy continued, to the injury of the institution and its work.

Finally these differences became irreconcilable and Dr. Turner resigned to save the work, and give his opponents an opportunity to carry on the work according to their plans.

There was a marvelous generosity in this, that after having planned and built the institution and marked out its future, and then because the managers failed to sustain his plans, and interposed all sorts of obstacles he gave it up, rather than have the work destroyed.

On withdrawing from the active work in the institution, he began to secure subscriptions to enlarge and perfect it, and receive assignments of the original stockholders, so as to have the building reinstated and placed under his direct care again.

During the next six years he visited every prominent man in the country, many of them over and over again, soliciting stock and subscriptions and explaining the plans and methods of the hospital at Binghamton.

Over 95% of the original stock of the company was transferred to him, making him the legal owner of the institution, and the lists of subscribers had increased until it embraced many of the most intellectual men in the country.

The managers had turned the institution over to the State of New York without the assignment of the original stockholders and when Dr. Turner had secured these assignments to him, he began a suit against the State of New York, for the restoration of the institution to its legal owners.

The management realizing that if this suit was pressed they would be turned out, and their methods of control would be the subject of scrutiny, and very likely destructive to their reputations, hence to prevent this they kept up a persistent persecution of slanders against Dr. Turner and his work, using the press wherever they could, to destroy his influence.

Realizing that his claim would be opposed, and that years would pass before a final settlement could be accomplished, he projected a Woman's National Hospital to be built at Wilton, Conn., along the same lines as Binghamton.

With a subscription book he started out as before, personally visiting prominent men in all parts of the country, soliciting subscriptions and material and money and exhibiting plans for the new building.

Notwithstanding the bitter criticism that followed him wherever he went he secured the largest personal endorsement, and subscription list of names of leading men that had ever been given to any institution, except that of Binghamton.

In 1881 a charter was secured from the Legislature of Connecticut. The citizens of Wilton and neighboring towns promised liberal contributions, and a board of personal

friends was gathered to second his efforts. The ground was broken for the new building in October in 1881, with appropriate services.

The plan of the asylum was spacious and artistic, and was drawn up under the direction of a famous architect, and in all probability was superior to that of any other institution.

The following four years were occupied in the same intense work which had characterized his earlier efforts, namely, soliciting money and material, and perfecting the plans for the endowment of a new building.

Suddenly the Legislature of Connecticut repealed the charter for the institution, and the same old persecution which had followed him from Binghamton was apparent in the wide-spread efforts to advertise the fact that the charter had been repealed, and bring out the doubtful character of the founder.

After the first shock of disappointment new plans were formed, and arrangements for a stock company, and a continuation of the building was perfected. Like the elder Napoleon he never recognized defeat, and while driven back and forced to take a new course, his interest and determination were increased.

It was then that he determined to write the History of the First Inebriate Asylum in the World, giving an account of the difficulties and trials, and including in it the opposition to the Wilton hospital. This book was published in a volume of 500 pages and is most pathetic in its account of the battles and struggles which he passed through.

With this book as evidence he started out with more enthusiasm and energy than ever, soliciting donations and rousing interest everywhere. His plans matured; capitalists rallied about him and material aid was offered, and he was on the verge of putting it into practical materialization, when suddenly the grim archer appeared and he was called away.

The week before his death several important interviews had been arranged, and as he said, he was nearer

the consummation of his life purpose than ever before.  
SOME OF THE DIFFICULTIES WHICH HE ENCOUNTERED.

The idea that an inebriate was diseased and could be cured by physical means in an institution was startling to the world fifty years ago. It appeared to be contradicted by personal experience, and the various assertions of the victims themselves.

To the religious world it was rank heresy and infidelity. To the medical world it was quackish, and to the business world it was absurd. Although the idea had been mentioned long before, it had been repelled as unworthy of the slightest consideration.

Dr. Turner, as its advocate, was unknown, a young man, with nothing but enthusiasm to support his claims. Huxley said that every advance in scientific truth is rejected by authorities, because it involves change and putting aside previous conceptions.

It was a most startling presumption from a practical point of view for a young, unknown man to throw his whole life into a tremendous effort to make the idea of disease and curability in asylums practical, and have it accepted by the world, but he was a hero in the largest sense of the word, and after years of most incessant effort his teaching took form and shape in a palace-like building at Binghamton, and was opened for a practical demonstration of the truth of his ideal.

Then another great obstacle concentrated in the institution. The work was new, and there was no experience or prestige to follow. Dr. Turner laid down a system of management, which 50 years later has been proven to be correct and thoroughly scientific, but at that time was denied and contradicted.

The genius of Dr. Turner in outlining and attempting to carry out at that early day a plan of treatment so complete in all its details is simply astonishing to us at this time.

The board of managers and the patients became the great obstacle to the growth of the institution. They assumed that Dr. Turner's medical knowledge was



incompetent to personally care for such patients. While granting that he had great genius in the organization and building of the institution, they demanded that the institution should be conducted along lines of their own judgment.

Dr. Turner was neither a politician nor diplomat, but he saw clearly that they were incompetent and without knowledge and refused to yield. Then the storm broke. Dishonest intriguers, wilful blunderers, personal selfishness gathered and drifted over the work of the institution, and Dr. Turner was practically driven out.

The difficulties were greater than ever he had encountered before. Public sentiment could not be controlled. Political methods and schemes covered up all his advanced views, and a great Bull Run defeat took place when he left the institution.

Had the board united with him in his far-seeing plans the great obstacles would have been overcome, and a great ideal establishment would have grown up.

Curiously enough the opposition and persecution kept public attention drawn to the work, and the fight over Binghamton asylum stimulated an army of observers everywhere, to put into practice, and test the correctness of the theories that were denied and advocated.

The result was that fully 50 institutions were established in this country and Europe, all based on the ideals urged by Dr. Turner at Binghamton.

This opposition turned into persecution which at the time seemed fierce and cruel, but later it was found to be the most significant endorsement of the man and his work.

When Talyrand was asked how a new religion could be introduced into the world he said: "Have the promoter of it crucified and hanged as an impostor."

The asylum at Binghamton went down thirteen years after Dr. Turner left it, in a fogbank of political dishonesty and incompetent management, but it proved to the world the great fact, that inebriety was a disease and curable,

although its demonstration was along entirely different lines, unknown by the management.

Institutions for the care of inebriates are still beset with difficulties. The armies of incurables bring problems that tax the greatest skill and energy to solve.

The quacks with their miraculous means and measures complicate the conditions, but each year brings into greater prominence the almost prophetic judgment of Dr. Turner.

The intensity of the personal persecution which followed him from Binghamton asylum and sought in every way to cripple and destroy his efforts is difficult to understand. While it repeats much of the history of the advances in the past, it is startling to think that men of intelligence should lend themselves to destroy and break down what they cannot understand.

Dr. Turner saw that notwithstanding the obstacles and the apparent failure of the institution at Binghamton, the great ideals of his life had materialized and been incorporated into the great working truths of the world. Then came the ambition to build up another institution on a broader basis with more certainty.

His effort to get control of the stock of the institution kept alive most vindictive slandering. Hence Dr. Turner preferred to work alone and to go on quietly with his plans and efforts. Influential friends offered from time to time to assist him, but this would bring prominence to his work which he wished to avoid, until his work was matured, beyond the power of misrepresentation.

Curiously enough a representative of the town of Wilton and another man in a neighboring town were found to lend their influence and become active agents to continue this persecution. When these facts were brought to the Governor of the State, he offered personally to lead in a stock company and have the charter renewed, and give of his time and substance to correct this mistake.

Had Dr. Turner lived, the State of Connecticut would have renewed the charter and given substantial aid to a most magnificent hospital here in Wilton. There

is something very heroic in the endurance displayed in overcoming these obstacles, and the marvelous faith that went on undaunted no matter what the difficulties were.

It was the spirit of the old martyrs who felt the breath of the upper air of progress, upholding them through all the difficulties from trials that compassed them.

#### THE GENIUS OF DR. TURNER

This was very evident in the bare fact of a young man, unknown with limited training and acquaintance with the world, becoming possessed with the idea of introducing a great new truth, and developing it. Those who knew him personally realized the inspiration and genius of his entire life.

There was a superior outlook and daring energy which pressed the thought with a positiveness that could not be mistaken. To strangers there was something mysterious in the loftiness of his mental ambition and purposes, which was interpreted in various ways according to the discernment of the person.

His genius was evident early in the monster petitions for the building of the institution, signed by eminent men, including two Presidents of the United States. The hearty endorsement of his plans and appeals to the legislatures creating public sympathy and educating public sentiment despite the most adverse opinions was genius of the highest grade.

Obstacles made no impression, except to rather increase his energy, and his whole life was one continuous journey without halting, changing or retrograde movements.

When he became Superintendent of the Inebriate Asylum and his personal views of management and treatment were opposed by the board of trustees there was no variation or turning. He was right, and he knew it, and the same masterly conception of what should be done, and unflinching determination to carry out his ideals marked every step of the journey.

His genius was not confined to vitalizing the idea of disease of inebriety, and enlisting others to believe it, and securing their personal influence, but it showed it-

self in the magnificent structure at Binghamton, which artistically and in many other ways was far ahead of the public buildings of that day.

The plans for the buildings at Wilton were equally comprehensive in beauty and adaptability. He knew what an institution should be, externally and internally, and he knew how it should be conducted, and the great principles of treatment that should be applied.

We turn now to a phase of his character which was human in a startling degree. After the great shock in the loss of confidence and failure of the board of trustees at Binghamton to sustain him, and their efforts to crush him out, there grew up in his mind doubts and fears which destroyed his confidence in other persons and their offers to join him and take part in his work.

He probably realized that anyone who united their fortunes or interests with him would have to encounter great difficulties and in all probability failed in the time of strain and stress. Hence the idea grew that all future plans and materializations must come under his particular care and direction, and be accomplished by him alone.

A great law firm in New York offered to conduct the suit against the State to recover the asylum at Binghamton, and receive a certain per cent of the value as their fees. Other men made similar offers, but they were all put off as matters to be considered in the future.

Two prominent men of wealth on several occasions offered to contribute the money necessary, to build the asylum at Wilton, but the conditions repelled him.

The executor of a large estate offered to build the institution and when I personally chided him for not accepting the offer, he replied, "To do so, would be to lose control of the institution, and this would be a source of future danger."

His dread of partnerships, associations, contracts and agreements in which others would have a part or equal share, seemed to grow with the years. He said that he would accomplish more personally, and with full control

of the destinies and future of the institution than with the help and assistance of others.

Many times during the last few years of his life, large sums of money were offered to him, and while he probably would have availed himself of it in some way, when the work had gone on, he hesitated at the time.

The bitter experience at Binghamton impressed him with a lurid fear of its repetition, and while he planned a board for the asylum at Wilton and arranged all the details, he was to have central authority and control.

The repeal of the charter of the asylum at Wilton raised a number of very influential friends, who would have given substantial aid in the erection of the building. One man promised \$50,000 for a wing of the building if it would be named after his wife. Another proposed to conduct the building personally and advance the money, and trust to Dr. Turner's efforts to have it paid back.

The last year of his life he realized that something of this nature must be done, and he had in his mind, no doubt, several plans, in which his friends would have aided him.

In this brief memorial study it will be interesting to trace

#### SOME RESULTS AND CONCLUSIONS

which have followed from Dr. Turner's work.

It may be stated that his real work began sometime about 1845 in the circulars addressed to the profession, to secure their interest in the work. Sixty-four years have now passed and Dr. Turner's work practically covered over fifty years.

At the beginning he was unknown, without friends, influence or acquaintance. At his death he was widely known, not only in this country but Europe, and now 10 years later his name and reputation are growing steadily everywhere. Wherever institutions are opened for the care of inebriates, and wherever the study of inebriety as a disease is mentioned the name of Dr. Turner marks the beginning.

In 1870 a society of medical men was formed in this



country to study this subject purely from its scientific side, and this society exists today and we as its representatives come here to pay tribute to the memory of our pioneer leader—Dr. J. Edward Turner.

In 1876 the first medical journal was published, devoted to this particular subject, called "The Journal of Inebriety," and continues to the present day.

In 1880 an English society composed entirely of physicians was organized on the same basis for the same purpose, and in 1881 this society began the publication of a journal along the same lines, which continues to the present.

In 1870 two societies of physicians and laymen were formed on the Continent, for the same study, and each of them have published papers giving their transactions and studies.

The first inebriate asylum at Binghamton was followed by a large number of institutions, many of them charitable, and all founded on the same principle of disease and its curability.

In 1886 the number of institutions had increased in Great Britain to such an extent that a Government Inspector was appointed to grant licenses and superintend their management, and prevent abuses that might grow up from them.

In 1889 an International Congress was held in London in which the disease of inebriety and institutions for its cure were discussed in many papers, and lasted over two days.

About this time a great wave of quack curers swept over this country, and at one time more than 100 homes and asylums were opened for the cure of the inebriate. These have nearly all disappeared, because of their empiric claims and conduct.

Every insane asylum in the country has special wards set apart for the care and treatment of inebriates, and every private sanatorium receives such patients. The literature growing out of these two journals has expanded



into many volumes, and is growing more and more voluminous every day.

All this is the direct result of Dr. Turner's life work. Literally a new land for medical practice has been opened, and the inebriate is now recognized as sick and diseased, and his treatment is a matter of physical means in the proper surroundings.

Dr. Turner's oft-repeated statement, that he would rather have built the asylum at Binghamton than been President of the United States is verified, and the critics of his early day, who thought he was only an enthusiast, have disappeared.

The men who maliciously persecuted him literally contributed to his fame and reputation. They brought into prominence the great ideals of his life, and kept them before the public, until they were recognized as great working truths of the world.

This brief sketch of his life only brings an outline of some of the stirring events that followed his life and work which will appear in a volume at some future time.

Looking back from this point of view we can say with great certainty that this one man's life has changed and widened the great race march, from the lower to the higher, that it has opened a new path of preventive medicine, and pointed out a new method of escape, and made life brighter and clearer.

I conclude by quoting a paragraph from Dr. Turner's "History of the First Inebriate Asylum in the World," which no doubt contains a sort of an instinctive conception of the reality of his work, which dawned upon him at that time.

"It has been discussed and decided by many of the friends of the founder that a man would exhaust his estate, mortgage his property, live in hotels and railroad cars for over a quarter of a century of his life, and permit himself to enjoy his home less than four weeks each year, giving his entire time for a great public cause, without any moneyed consideration, is either an idiot or a lunatic. Yet there are others who would make the same sacrifice,

if called on to accomplish a similar great work. The real labor of the founder has gone over a period of nearly fifty years, in which he has fought a campaign of battles and skirmishes with all sorts of success and failure. All the good men associated with him in this work have passed away, and not one is left in this dark day to speak of the asylum history and its behalf.

"Although their labors in the material asylum have perished, yet the idea which built it is immortal."

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## SELECTIONS

### NEUROSURGERY

SURGERY OF THE NERVOUS SYSTEM—Loewy notes the most recent advances in this field. Among these are the cure of hydrocephalus by ventricular puncture. In tumors of the brain we see daring interventions along with a tendency toward conservatism, the former being indicated of course when life is menaced. When delay is obtainable von Eiselsberg, a leading cranial surgeon, pushes Hg and I for months. A few intraspinal tumors are amenable to operation. Hypophysis operations are of course on the increase and the author speaks of von Eiselsberg's 18 cases as if it were a record. Cushing is ignored. Forster's operation for spastic palsy continues to be a subject for endless discussion.—Med. Rec. Abs.

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### NEUROTHERAPY

INTRAVENOUS MERCURY MINISTRATION—Kalledey concludes from his work (Centralbl. f. Bakt., Vol. lxxviii, p. 358) that the intravenous administration of small amounts of mercury bichloride results in an increased antibody and complement formation in both sick and healthy animals. He studied the quantitative changes in the complement, and the normal agglutinin and lysin of pregnant women, and the specific agglutinin and lysin in rabbits immunized against sheep's red cells or the typhoid bacillus. All of these bodies reacted similarly, and it seemed to make no difference whether the dose was

three or five milligrams. Following the injection there was a rather rapid fall, corresponding to a "negative phase," which reached its maximum in two days. Then began a gradual rise so that the number became normal about the fifth day and reached its height about the tenth day. The number gradually declined again until at the end of fifteen days the value of the serum was again normal.

The author is naturally reluctant to offer any explanation as to the manner in which this change is accomplished, but is inclined to believe that, as mercury is a protoplasmic poison, the negative phase represents a primary destruction of the cells. After this the cells are stimulated to increased production of protective substances. He believes that arsenic, and therefore salvarsan, acts in the same way, and that it is the quantity rather than the quality of the antibodies which determines the cure. It would be contrary to the rule for the body to react in this way to an inorganic poison, but his experiments seem conclusive and are certainly worthy of attempts at confirmation. Other recent work would tend to indicate that the quality of the antibody is of the highest importance.—Abst. Stedman, Editorial, Med. Rec.

FIFTY DOLLARS was the fine imposed on the shippers of a so-called headache remedy labeled "Jaquequina," according to judgment by the Department of Agriculture.

Misbranding was alleged because the label failed to state the quantity or proportion of acetanilid contained therein. Analysis showed about 230 grains per ounce.

THE CHAULMOAGRA OIL CURE FOR LEPROSY is reported to have been effective in the St. Lazarus Hospital by the Philippine Board of Health, two patients showing on final examination, no signs of the disease persisting, microscopic or otherwise.

CHEMICAL AND PHYSIOLOGICAL INVESTIGATION ON THE HARMFUL CONSTITUENTS OF ROASTED COFFEE.—The disturbances of the digestion which follow excessive coffee drinking are considered by the author, in a communica-

tion to the Societe de Therapeutique, not to be due in any degree to the caffeine, but solely to certain volatile constituents formed, and only partly volatilised, during roasting. These are named cafeotoxin, and may be eliminated by submitting the roasted coffee to successive treatment with steam under pressure of several atmospheres, followed by exposure under a vacuum. The coffee thus treated is called "atoxicafe." It retains its caffeine unaltered. It differs from ordinary coffee only in containing less cafeotoxin. Cafeotoxin has a marked reducing action on haemoglobin, a hypotensive action on the circulation, a depressant action on the central nervous system, occasioning cardiac arrhythmia, and on the respiratory centres, causing dyspnoea.—J. Burmann (J. Pharm. Chim., 1913, 8, 281.)—Pacif.-Phar.

RADIUM EMANATION IN MEDICINE.—The distinguished English surgeon, Sir Frederick Treves, recently stated that radium emanation is just as effective for curative purposes as radium itself. Assuming that radium is really the valuable therapeutic agent which it appears to be, the announcement is of great importance. Radium is extremely precious, for a small quantity of radium can produce practically an unlimited quantity of very cheap emanation. Radium emanations contained in sealed metal applicators are being sent off daily to all parts of England for medical men to use on their patients who cannot attend the Radium Institute. In a space of ten days emanations equal in curative value to \$86,000 worth of radium have been sent out. Radium emits three sets of rays, designated respectively by the Greek letters, "alpha," "beta" and "gamma." The first two destroy the healthy tissues of the body when directed at close range, and at greater distance stimulate the abnormal tissues of tumors to renewed growth. The "gamma" rays are those which are desired. The more or less undesirable "alpha" and "beta" rays are filtered out by lead screens, through which the hard "gamma" radiations pass easily.—Scientific American. Pac.-Phar.

**RADIUM AS A THERAPEUTIC AGENT.**—In the October 18th issue of the Journal of the American Medical Association appears an article by Drs. L. G. Bowntree and W. A. Baetjer on the action of radium in internal medicine. The paper is largely a summary of results observed by foreign investigators. According to these reports radium is apparently of great therapeutic value in various disorders such as gout, lumbago, neuralgia, neuritis, rheumatism, arthritis, etc., etc. Apparently the best results are obtained from inhalations of the radium emanations and internally, as in the form of waters charged with radium. The authors conclude that the results so far obtained warrant more exhaustive tests with this agent.

Radium was discovered by Mme. Curie. It occurs in pitchblende and it has been noted that carrying the ore in the pocket causes destruction of cells and tissues in close proximity.

Those interested should read the article referred to or a fuller report thereon in the Bulletins of Johns Hopkins Hospital, Baltimore, Md.—A. S. in *Pacific-Pharmacist*.

**SODIUM BICARBONATE AND OTHER ALLIED SALTS IN SHOCK. EXPERIMENTAL STUDY.**—Henderson suggested the prevention of the loss of carbon dioxide as a rational therapy for shock. Howell in 1903 found that sodium carbonate was an excellent cardiac stimulant in shock. On the assumption that Henderson's theory was the correct one an effort was made to supply the blood stream, directly with carbon dioxide gas. (Seelig, Tierney and Rodenbaugh, *Amer. Jour. Med. Sciences*, Aug., 1913.) A molecular solution of sodium bicarbonate was used for this purpose, as carbon dioxide is set free from this solution by the action of the (1) hemoglobin, (2) serum albumin, (3) the primary (acid) sodium phosphate in the blood. The results of experiments upon dogs seem to justify the statement that the intravenous introduction of sodium bicarbonate is the most efficacious remedy in the treatment of shock. There was always a rise in blood pressure in those dogs subjected to shock, the rise



persisting for some time. In unshocked dogs no such results were obtained.

In addition to the rise in blood pressure, there was an increase in the amplitude of the heart beat. As opposed to the action of adrenalin, the phenomena observed were lasting in character. Sodium bicarbonate had no effect upon the rate of the heart beat. In addition to the action upon the circulation, there was a marked increase in the depth of respiration following almost immediately the injection of the bicarbonate solution, and persisting for some time. The action on the rate of respiration varied. Sometimes there was no change, at other times a slowing or an increase.

The results of the experiments, however, seem to indicate that the action of sodium bicarbonate is due to something more than the intravascular liberation of carbon dioxide. To substantiate this, carbon dioxide gas was introduced directly into the blood-stream and although the respiratory function was stimulated, there was no effect on the rate of heart beat, amplitude of pulse pressure or height of blood pressure. The problem then presented itself: was the action of the sodium bicarbonate solution due to (1) the bulk of fluid injected, (2) the hypertonicity of the fluid injected, or, (3) the alkalinity of the fluid injected. Each of these hypotheses was experimentally disproven, leaving naught but the conclusion that the sodium bicarbonate acted specifically upon the heart muscle. Corroboration is afforded by the fact that a rise in blood pressure follows an injection of sodium bicarbonate even after both vagi have been cut, and even after all the higher cerebral centers have been destroyed.—*Med. Rev. of Rev.'s.*

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## NEUROTOXICOLOGY

USE OF HEROIN SPREADING RAPIDLY AMONG DRUG ADDICTS.—Laws against the promiscuous sale of morphine and cocaine leading those with drug habits to take up even more dangerous substances.

According to the U. S. Department of Agriculture, there has been a sudden and very significant increase in the use, by persons with a drug habit, of "heroin." The sales of this drug have recently increased greatly, particularly in those States which have rigid laws preventing the indiscriminate sale of morphine and cocaine.

It occasionally kills the victim outright. The Department warns to avoid all preparations containing the substance and to take it only on the prescription of reputable physicians.

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## NEURODIAGNOSIS

LOMBARDI'S VARICOSE ZONE OF WARNING to the incipiently tuberculous. This "zona varicosa d' allarme," is described in the *Giornale Internazionale della Scienze Mediciniae* as consisting of small varicosities about the seventh cervical and three upper dorsal vertebrae, one to one and one-half centimeters brought out plainly by gentle cross stroking of these parts of the nucha and back. Professor Antonio Lombardi is known to our readers as a close and reliable observer.

THE FOUR REACTIONS IN DIAGNOSIS OF LUES.—The *Laboratory News* for September last has the following editorial by Dr. Gradwohl:

Clinicians should avail themselves of the four reactions in syphilis if they wish to get a full substantiation of their clinical diagnosis. It has been repeatedly proven that syphilis of the nervous system requires much serological study for accurate diagnostic purposes.

There are many cases of cerebro-spinal syphilis which show a negative Wassermann in the blood and a positive Wassermann in the spinal fluid. Syphilis affecting more especially the blood vessels of the cerebro-spinal system always causes a single Wassermann test in spinal fluid. Besides the Wassermann test we have recourse to the

Nonne-Appelt globulin test of spinal fluid, and lastly the lymphocyte count.

The four reactions, therefore, of syphilis which are to be looked for in substantiation of syphilitic diagnosis are (1) Wassermann of the blood; (2) Wassermann of the spinal fluid; (3) Nonne-Appelt test of the spinal fluid; (4) lymphocyte count of the spinal fluid.

In making the Wassermann of the spinal fluid it is very important to follow the Hauptmann technique, which employs the use of large quantities of fluid. This technique is carried out as follows:

Make five Wassermann tests of this fluid using 1.0, 0.8, 0.6, 0.4, and 0.2 c. c. of fluid to each test with proportionate increase in physiological sodium chloride solution; in this way we can accurately determine the degree of positiveness of the fluid.

If these four reactions are consistently looked for in all cases of suspected syphilis, especially syphilis of the nervous system, which includes, of course, paresis and tabes, a great many cases will be easily diagnosticated and perhaps remedial measures can be applied which will lead to better results in the treatment of cerebro-spinal syphilis.

Prognosis above all can be materially improved by this method because we can confirm a clinical diagnosis of paresis by the presence of all four reactions, enabling us to stamp an incipient parietic with an absolute diagnosis and thereby letting his family know definitely the present incurability of his condition.

It is found that some cases of cerebro-spinal syphilis show a positive Wassermann of the spinal fluid, a positive Nonne-Appelt and an increased lymphocyte count, but no Wassermann in the blood serum. Others will show positive Nonne-Appelt and an increased lymphocyte count but no Wassermann. Again, some will show a positive Wassermann, a lymphocytosis, but no Nonne-Appelt. In other words it is the presence of one or more of these reactions coupled with clinical findings which will enable us to accurately diagnose syphilis.

SPINAL FLUID CELL COUNT IN SYPHILIS OF THE CENTRAL NERVOUS SYSTEM.—The central nervous system is so delicately constructed and so thoroughly protected that a direct examination for diagnostic purposes is very seldom to be thought of. But we have, in lumbar puncture, a means of determining with considerable accuracy the condition of these structures. We are able to withdraw and examine a portion of the fluid which bathes them; and it has been found that this fluid undergoes various changes following an inflammatory or irritative process of the covering membranes.

The change most frequently encountered is an increase in the number of cells floating in the fluid, due to actual pus formation in some cases and, apparently, to a desquamation of cells from the diseased surface in others. This paper will be limited to a discussion of this one abnormality, an increased cell count, with special reference to its peculiarities in cerebrospinal lues, paresis and tabes.

A pleocytosis is very constantly present in these diseases, even more so than is the Wassermann reaction; and it has the added value, as compared with that reaction of localizing the disease definitely in the central nervous system. The author's results are 98.2 per cent positive for paresis, 100 per cent positive for tabes, and 86.3 per cent for c. sp. lues.—O. P. Bigelow, A. B., M. D., Cleveland. In Cleveland Medical Journal.

"THE PASSING OF PARESIS."—The October Medical Review of Reviews has an interesting record and comment on this subject from which we abstract a few pertinent paragraphs.

"The history of the development of our knowledge of syphilis is interwoven with many names that give lustre to medical literature. Schaudinn, Ehrlich, Wassermann, Fournier, Charcot form a galaxy of eminence to which must be added Noguchi. Important as were his investigations into the serological diagnosis of syphilis through the test known by his name and valuable as have been his experiments with luetin, his recent finding

of the *Treponema pallidum* in the brains of paretics will have a more significant influence upon our theories as to the etiology of the late conditions following in the course of syphilis.

Noguchi's positive findings were in patients who had rapidly succumbed to paresis. It is possible that investigations of the nervous system of tabetics will disclose similar findings in the cases where death occurs in the early stages from some intercurrent disease.

The great importance of this discovery by Noguchi lies not in the clearing up of medical nomenclature but in the positive indication for prompt treatment of syphilis. For many years there has been a tendency to await the development of secondary symptoms before beginning the active administration of salvarsan, or mercurials. If the so-called parasymphilitic diseases are due to spirilosis of the brain itself, it is important to lessen the number of infecting spirochetes at the earliest possible stage. The exhibition of the initial lesion affords the best opportunity for limiting the infection. Prompt therapeutic attention to primary syphilis will result in destroying the infecting organisms before they disperse to become disseminated throughout the system." Etc.

"WEEDS" TO EAT.—In the Gardener's Chronicle of America, March, 1913, Mary Tabott calls attention to the value of many of our common weeds as vegetables and salads. The common dandelion, the milk-weed, yellow dock, red clover, poke shoot, sour grass and golden thistle.

The value of the mineral elements contained in these common plants differs but little from that obtainable from most of the vegetables cultivated at present. As sources of nitrogen, some are of greater service than the salads now in common use.

The medicinal qualities of the dandelion, yarrow, marsh marigold and similar wild plants is well established in folklore. It required twenty-five years to establish a good dietetic reputation for the "love apple," as the



tomato was termed. Mushrooms were long forsworn as inedible and poisonous.

The cultivation of foodstuffs of high caloric value and with low cost deserves encouragement. In the struggle for life and sustenance, we must not underestimate the life-preserving qualities and the dietetic value of the common "weeds."

Nourishment is not to be refused, though it comes from the roots of the thistle, the shoots of hops, the purslane or the tuberous roots of broad leaved arrow. The soy bean is barely known, save as a forage crop or as an anti-diabetic food. Alfalfa promises to assume a place of importance.—Abstract from "Weeds to Eat" in Medical Review of Reviews. Editorial.

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## NEUROHEMATOLOGY

HEMOTOLOGIC RESEARCHES IN ALCOHOLISM.—By Arturo Garrieri in *Revista Sperimentale di Freniatria* and *Revue de Psychiatria*.

1. The proportion of haemoglobin has been proved by this author to be below the normal in alcoholics.

2. The number of red globules is diminished.

3. The leucocytes vary in number, yet, during the acute stage, there is a constant polyneucleosis, which disappears gradually as the general state of the disease is improved. With this polyneucleosis is associated a reduction of mononucleus and lymphocytes.

4. The blood pressure is above normal in alcoholics.

5. There was not a constant relation in these patients between the blood pressure, the pulse and the respiration.

6. The globular resistance is much diminished during the acute stage. It increases progressively with the return to the normal state of the subject—psychical and physical.

7. The osmotic tension of blood serum is greatly increased in alcoholism.



## NEUROPATHOLOGY

## A HUMAN BEING WITHOUT CEREBRAL HEMISPHERES.

—The classic experiment of Goltz in which he removed both cerebral hemispheres from a full-grown dog which was subsequently kept alive for some years has since been duplicated by others and has furnished the basis for important deductions regarding the functions of the portions of the brain involved. In a decerebrate dog it is evident that all those reactions in which the associative memory plays a part are permanently lacking, while the simple reactions that depend on inherited conditions only, may remain. In accordance with this the dog without cerebral hemispheres sleeps and wakes; it moves spontaneously; there is an extreme restlessness doubtless connected with the removal of cerebral inhibitions. Discrimination is shown by such animals with respect to food of varying taste. Goltz's dog could still bark and howl. It could be awakened by noise and it responded to bright light. On the other hand, it could not seek its food and recognized neither master nor companions.

The general impression which one gathers from the investigations of cerebral functions in animals is that their subcerebral centers are complete enough to be able to carry out many motor reactions independently of the higher hemispheres of the brain. It is, of course, desirable to ascertain to what extent the facts of animal experimentation find their analogy in the workings of the human brain. Accidents have furnished numerous instances of partial loss of cerebral substance; but such cases are far from comparable with those in which there is extensive or complete removal of the hemispheres. There are instances on record **of** human beings born without a cerebrum, but they have been anencephalous fetuses which have survived for only a few days. Even the scanty observations made in such cases have demonstrated that in the absence of a cerebrum movements of the limbs and eyelids, sucking movements and the act of crying can be carried on successfully. It has remained

for Edinger and Fisher to furnish the first description of a human being devoid of cerebral hemispheres who has remained alive for any considerable period. Their subject was under observation until its fourth year, when death, due to pulmonary tuberculosis, occurred. We are told that, although the symptoms exhibited by the child gave occasion to assume the existence of some severe brain involvement, prior to the necropsy, no one would have suspected the complete absence of the cerebrum. Entirely occupying the place of this portion of the brain was found a membranous bag filled with fluid, while the lower portions of the central nervous system exhibited a fairly complete and normal structure.

The very satisfactory account of this child's experiences during the three and three-quarter years of its life which Edinger and Hirsch have fortunately succeeded in obtaining impresses one with the decided inferiority of the decerebrate human subject as contrasted with comparable dogs. The child showed scarcely any change of behavior from its birth to its death. This is not true with regard to decerebrated dogs for which suitable records have been obtained. These learned to walk, to assume characteristic postures in the acts of defecation and urination, to alternate sleep and waking. The child never acquired such capabilities. It lay motionless in sleep unless awakened, and unlike the dogs, failed to learn to take food otherwise than by the primitive act of sucking. Like the dogs, it was apparently blind. It seemed impossible to discover a reaction whereby any relation which was semipsychic or conscious on the part of the child could be entered into. To quote the German observers: The child without cerebrum was less capable than a decerebrate fish or frog.

The difference in the reactions of various animals to lesions of the motor cortex is now explained by physiologists as being connected with the gradual shifting of functions from the sphere of necessary reactions to the sphere of educatable adaptations, that is, from the lower centers to the cerebral cortex. This is characteristic

of the evolution of the higher type of nervous system and is a concomitant of the increased adaptability which distinguishes man from all the lower animals. In the animal without hemispheres the motor mechanisms for all the movements of the body are present and can be set into action from any point on the sensory surface of the body. The first effect of adding the cerebral hemispheres to this mechanism is to increase the range of reactions, to modify or inhibit them, by diverting the stream of nervous impulses into channels which have to a large extent been laid down in the cortex by the past experience of the individual. In the dog, although a portion of the brain is in direct connection with the spinal motor centers, and can therefore initiate movements without making use of the midbrain motor machinery, these movements play only a small part in the motor life of the animal, and the removal of the corresponding centers takes away little of the conscious functions of the animal. In man the enormous power of acquisition of new movements is, as Starling emphasizes further, rendered possible by the shifting of one motor function after another to the sphere of influence of the cerebral hemispheres. Almost every act of human life has come to involve the cooperation of the cerebral cortex. The motor defects and the lack of adaptations exemplified in the child we have described would seem to show that the subcerebral centers in man are not complete and that this lack is permanent.—Nov. 22, 1913. *Jour. A. M. A.*, Ed.

**DEGENERATION OF THE NEURON.**—F. W. Mott, in *November Lancet*, points out that degeneration of the neuron may occur from an inherent lack of durability of certain correlated functional systems, as occurs in certain diseases which affect members of families at the same age in life and often generation after generation—e.g. *Huntingtons' chorea*, *hereditary ataxia*. Degeneration of the neuron may result from direct injury or local extension of inflammation or by ischemic softening due to obstruction of the blood supply by vascular occlusion; the degeneration

that results therefrom is secondary. But when for whatever cause nervous tissue disappears the neuroglia always reacts by a nuclear and fibrillar proliferation—a law formulated by Weigert in 1890. The replacement of the nervous tissue by the neuroglia tissue causes a “sclerosis.” But the term “sclerosis” in the sense of a neuroglia proliferation being the primary cause is incorrect; the sclerosis is the effect, not the cause. A pure primary decay of the neuron has been termed by Sir William Gowers “Abiotrophy.” Many of these conditions of abiotrophy are associated with chronic inflammatory changes, and it is very difficult to say how far these cause the decay of the neuron or are the result of it; certainly a proliferation of neuroglia tissue may result from simple atrophy and decay of the neuron, but a perivascular lymphatic infiltration with lymphocytes and plasma cells is evidence of a reaction to the poison. There are two diseases in which this perivascular cell infiltration, together with neuroglia proliferation, is particularly marked and more or less universal in the central nervous system. They are the diseases caused by two specific protozoal organisms—the *Trypanosoma gambiense* and the *Treponema pallidum*.—Medical Record Excerpt.

SUGAR IN THE BLOOD.—Bing and Jakobsen report the results of estimation of the sugar content of the blood in sixteen normal persons, in thirteen with kidney disease, in seven with stomach or pancreas disease, in five with merely nervous disturbances, in seven with diabetes, and in six suspected of diabetes. The estimation was made by means of Bang's technic which they regard as an improved method for the purpose on account of its simplicity, rapidity and the fact that only a drop or two of blood is required for the test. Normal range was from 0.06 to 0.12 per cent., the average 0.1. The test was applied always at the same hour, 8 a. m. fasting. In a series of tests on a similar group of ten healthy persons given 100 gm. sugar in a cup of tea, the sugar content of the blood was found materially increased one hour afterward, but by the second hour the proportion had dropped back

to the previous figure. This shows the importance of making the test always under the same conditions and of being on the lookout for the briefly transient alimentary hyperglycemia. In two other cases, men of 55 and 60 had been taking very large amounts of sugar systematically on account of a chronic heart disease, hoping thus to improve the nourishment of the heart. Even with these doses of 250 gm. of sugar and above, the sugar content of the blood kept within normal range. In kidney disease the sugar content was a little above normal in a few of the thirteen patients tested, but it generally dropped to normal during the stay in the hospital and there was no abnormal alimentary hyperglycemia. The finding showed further that there is no constant relation between the sugar content and the blood-pressure; each may run an independent course. No excess of sugar in the blood was found in the cases of stomach or thyroid affections or neurasthenia, but there was a slight tendency to hyperglycemia in a case of acute pancreatitis and of cancer involving the pancreas. With polycythemia there was hyperglycemia, on account evidently of the large proportion of reducing substance in the blood corpuscles. With diabetes, the sugar content was abnormally high both fasting and after meals, but the hyperglycemia and the glycosuria did not run parallel; the latter may exist with normal sugar content in the blood. This emphasizes the kidney element in diabetes. In seven typical cases of diabetes, the sugar content ranged from 0.071 to 0.146 per cent. in one patient aged 44 in the course of a month. The range in the total seven was from 0.071 to 0.265 per cent. The great practical importance of the research reported lies in the fact that by examining the blood for sugar in dubious cases of diabetes or when the condition has improved under treatment, we are able by estimation of the sugar content to determine whether the diabetes has actually been conquered or whether it is liable to flare up again on any indiscretion. In such cases the casual and occasional appearance of glycosuria with normal sugar content in



the blood may be accepted as a comparatively trivial phenomenon, not fraught with serious consequences.—*Jour. A. M. A.*, excerpt from *Ugeskrift for Laeger*, Copenhagen.

**SEROTHERAPY OF EPILEPSY.**—Gasper gives no details but speaks in general terms of the conception of epilepsy as a toxemia, evidenced by the toxicity of the cerebrospinal fluid for animals, and by the efficacy of reinjection of the patient's own cerebrospinal fluid or fluid from other epileptics. The fluid is injected subcutaneously or into a muscle once a week, the amount not over 10 c.c. He queries whether the undeniable unmistakable improvement and even cures realized by this serotherapy can be explained by assuming the existence of antibodies in the fluid.—*Ibid.*

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## CLINICAL PSYCHIATRY

DR. GAY OF BOSTON in a recent letter to the daily press makes the following startling statement: "Hitherto, physicians have considered the results more than the causes and means of prevention. It is high time now for the tax payers of Massachusetts to recognize the defects in her people, as seen in the fact that it requires seven million annually to care for her defective, delinquent and criminal classes. These include the insane, feeble-minded, epileptic, inebriate, paupers and criminals.

Thousands of these unfortunate people have become public charges. Many are of no use to themselves or any one, but are simply burdens of an overtaxed commonwealth. Among the chief causes of these deplorable affairs are alcohol, the social diseases, and heredity. The abuse of alcohol directly or indirectly does more to fill our prisons, insane hospitals, alms houses, and other institutions, than all other causes combined."

This opinion is stated as a fact by a commission appointed by the legislature to consider and report on



this subject. Upon the best of authority it is clear that a large proportion of chronic alcoholics are the victims of one or both of the social diseases. This fact is recognized by the medical profession with greater frequency. So far the only effective method is by segregation in asylums, schools, prisons, colonies and homes. There is a great, unknown field, stretching out from this point, yet to be occupied.—The Journal of Inebriety.

PSYCHOLOGIC CONCEPTION OF DISEASE.—Brock maintains that health consists in an effective, disease in an ineffective, reaction of the organism to its environment. Organisms moving in highly complex environments have developed a unique instrument of adjustment—namely, intelligence—to help them to deal adequately with such environments. Much of what, by a confusion of thought, is called “mental disease” is simply an abnormal reaction of such an organism to its environment—a misuse by it of this intellectual instrument of adjustment. *Natura non facit saltum*. Life proceeds cautiously, repeating again and again the reactions she has found serviceable, before proceeding to experiment further. The repetition, however, is for the sake of the advance; an organism which contents itself with marking time is doomed. Brock aims to demonstrate that certain diseases are best understood from a geneticopsychologic point of view, and that, accordingly, it is first and foremost by the employment of educational methods that we can best ensure the prevention of these diseases in the future. Some of the accompaniments of disease are not themselves, strictly speaking, pathologic. Thus inflammation may be looked on as a perfectly healthy and “normal” reaction to an extraneous stimulus of relatively infrequent occurrence. Or again, in the “mental” field, certain conduct on the part of highly gifted and far-seeing persons is often branded as “cranky” or even insane, when, as a matter of fact, it may have been necessitated by, or at least may form a quite healthy and useful protest against certain pathologic manifestations in the social environment.—Edin. Med. Jour.

## CLINICAL NEUROLOGY

THE VIRUS OF RABIES AND THE NEGRI BODIES.—A distinct advance in the diagnosing of rabies followed the discovery, by Adelchi Negri in 1903, of certain cellular inclusions constantly present in the nervous system of animals affected with this disease. In the past ten years many of our health boards have used means for the recognition of these bodies which have come to be regarded of prime importance in the diagnosis of rabies. Negri himself worked for nearly ten years in studying these bodies and successively demonstrated their presence in various animals suffering from rabies. His work has been confirmed by many observers the world over. The findings have been so generally uniform that it has come to be recognized that when Negri bodies are found in the ganglion cells of the hippocampus major it is a positive sign of rabies. These bodies have been further studied by researchers with a view to proving their parasitic nature but without advancing our knowledge of them any more than in the case of the Guarnieri bodies caused by vaccine virus. The smallest of these bodies are almost ultramicroscopic and react to stains like nuclear particles, but the largest—the typical Negri bodies—are readily differentiated from nuclear particles by appropriate staining methods. Any further light upon the significance of these bodies is to be welcomed, especially since, every now and then, some false prophet preaches that there is no such disease as rabies. Pasteur's work alone in 1884 should refute this.

Recently Acton and Harvey of the Pasteur Institute in India have published a report of their studies on the fixation of rabies virus in the monkey (*Macacus rhesus*) with a study of the appearance of Negri bodies in the different passages (*Parasitology*, Vol. 5, No. 4, February, 1913.) These authors found that the street virus of the dog becomes exalted and fixed by successive passage through the monkey, just as in the rabbit and other animals; the type of rabies being at first furious,

but after the seventh passage, paralytic. With each successive passage the Negri bodies were found to be smaller in size until ultramicroscopic. After the seventh passage, when the paralytic form of rabies was fully developed, very few Negri bodies were found. This diminution of the number of Negri bodies seems to bear a definite relation to the fixity of the virus as shown by another experiment. The authors inoculated two bullocks, one with street virus and the other with fixed virus. The street virus caused large Negri bodies, whereas the fixed virus caused none at all—and this in an animal showing the largest Negri body known.—Editorial N. Y. Med. Rec.

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## CEREBROPSYCHIATRY

THE DENVER MEDICAL TIMES thus discourses—The Chemistry of Thought—The substratum of all animal functions is the energy liberated by chemic change, such reactions being more or less limited to the organ chiefly concerned. Thus, in muscular exercise and grandular activity much heat is produced through the oxidation of carbohydrates, so that the blood in the hepatic vein is the warmest in the body. The amount of chemic action taking place may be estimated approximately by the quantity of end products (water, carbon dioxid, ammonia, etc.) manufactured and excreted within a given time. Accumulation of metabolic products leads to fatigue and an instinctive desire for rest or recreation.

That the brain while actively functioning requires more blood within the period than when at rest, has been proved beyond a doubt; one method of proof being that when the body is evenly balanced upon a delicate apparatus and then the subject of the experiment concentrates his thought upon anything, the upper pole of the body becomes heavier and the head sinks. It is evident, therefore, that in the process of thought the common

nutrients in the circulating blood are needed, as well as the more specialized lipoids of nerve tissue. Psychic influences occasionally cause a rise in temperature above the normal, and are very important factors in leading to vascular hypertension.

The chemic composition of brain substance is distinguished by its peculiar richness in phosphorized lipoids, particularly lecithins. These are much diminished in degenerations of the cerebro-spinal system, with a corresponding increase of extractives (neurin, cholin, fatty acids and purin bodies.) "According to Sajous, the entire nervous system is built upon the plan of fibrils containing blood plasma surrounded by a layer of myelin. The main constituents of these bodies, the oxygen of the plasma and the phosphorus of the myelin, are thus brought into contact, and nervous energy is liberated." This conception, while necessarily somewhat figurative, expresses the essentials of the chemic nature of nerve and brain functioning in the simplest possible manner. Myelins and kephalins (Thudichum) are related to the lecithins, being distinguished mainly by differences in solubility.

Considering the mind as the function of the brain, there naturally arises the question, to what extent may diet influence the faculty of thought? We believe that the nature of their food has a great deal to do with the ideals and mental status of individuals and nations. Compare the zoolatrous East Indians with the handful of their beef-eating British conquerors. If proper feeding affects the temper and spirit of a dog, how much more it will do to a man! Among the foods particularly rich in the elements needed for brain work are eggs (7 per cent lecithin in yolk,) fresh meats and fish, milk and cheese, whole wheat bread, beans, cocoa, butter, olive oil and other neutral fats. It goes without saying that excess in any of these articles of diet may defeat the desired end, by causing indigestion and autotoxemia. Of medicines to build up the brain and nerves, the most reliable is phosphorus itself, perhaps accompanied with thyroid extract, to enhance its assimilation.

The study of the body fluids may in certain cases of cerebrospinal affections render diagnostic aid of at least confirmatory value. Thus, indicanuria is marked in most melancholic conditions. Oxaluria ("false Bright's disease") attends nervous depression and irritability. "Phosphaturia" is likewise noted in hypochondriacs, and the earthly phosphates are greatly in excess in the urine in meningitis. An attack of migraine often ends with a urinary uric acid cloudburst. Halliburton has demonstrated an excess of cholin in the blood and the cerebrospinal fluid in degenerative diseases of the nervous system. The cerebrospinal fluid is chemically altered (acid reaction; presence of neutral fat and butyric acid; reaction for globulin, absence of normal copper-reducing power) in the meningitides, and to a less degree in parasyphilitic maladies.

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## PSYCHIATRY

WHAT EACH PERSON CAN DO IN THE MENTAL HYGIENE MOVEMENT. From Origin, Objects and Plans of National Committee on Mental Hygiene.

1. Inform yourself thoroughly regarding the causes of mental diseases.

THE  
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\* EDITORIAL.

"Quantam ego quidem video motus morborum fere omnes a motibus in systemate nervorum ita pendent ut morbi fere omnes quodammodo Nervosi dici queant."—CULLEN'S NOSOLOGY: BOOK II, p. 181—EDINBURG ED., 1780.



THE ACQUITTAL OF MENDEL BEILISS, the innocent brick yard work-man of Kiev, of the Bandt propagated, but unfounded and impossible charge of ritual murder, which deceived the Russian government into the poor man's prosecution and the court and police protection given the unfortunate prisoner in the face of this superstitious anachronism reminds us, to the credit of that great autocratic country, that there are yet existent some psycho-neuronic stability, even though prejudice against the Jew there ordinarily exceeds normal bounds among race prejudiced people. That long suffering Semitic tribe whose ancestral *faux pas* in regard to Christ in that distant century when our era began has, up to a comparatively recent period, brought social ostracism into their life and "all their woe."

STATE AND PRIVATE HOSPITALS, ASYLUMS, SANITORIA, PSYCHIATHRONS and sanitary institutions of all kinds for the mentally and neurotically maimed or congenitally marred in mind, exceptional homes and schools, etc., will do this magazine a favor by mailing us photographic illustrations of their family life, similar to some already published in our pages. We desire these worthy establishments to appear in their best and true light. They are not everywhere fully understood in their home-like curative aspects. From time to time, in subsequent issues we would present them.

THE UNSTABLE NEURONE appears to have been in evidence throughout the career of Hans Schmidt, the confessed murderer of Ann Aumuller and others, throughout his startling career of priest and thief and multi-form murderer and criminal.

While race suicide is censurable among the better hereditarily endowed, asexualization and race famine were better for cases like this criminal, with his many aliases. The breed of such unstables, whether technically insane or not, should be put out of the way of further harm.

A PHYSICIAN IN GENERAL PRACTICE in a distant State, Dr. R. E. King, thus expresses this true psychotherapeutic idea in practice.

"Any means that will direct the mind of a patient into a channel of hope, expectancy, faith and belief, and establish a suggestion opposite to that usually found in the mind of the sick, will constitute an important factor in that patient's ultimate recovery."—(President's Address, before the Oregon State Medical Association.)

THE REST CURE IN POPULAR LITERATURE.—Wm. Mathews in Success Magazine some time back remarked as follows:

"Men who fill unaccustomed positions, exacting severe mental toil, are almost sure to be short-lived. Persons whose callings subject them to a heavy nervous strain ought occasionally to spend a day or two in bed. Even an afternoon nap is a tonic, and may do much to lessen the wear and tear of nervous, anxious days. One of the ablest statesmen of modern times, when once reproached in early life for indolence, retorted, 'I am restoring energy.'

"When will we learn," comments the writer, "that it is not the number of hours we work but the efficiency of the work done that counts? Many of us would accomplish much more in two or three hours of vigorous, effective work than we could accomplish in an entire day with the whole system out of tune."

THE GOVERNMENT OF THE A. M. A. is too much oligarchical and too little democratic for this day and generation.

If the association's delegated form of government is to continue there should be more managerial interest taken by the members at large in instruction of the delegates, and the recall would not be amiss.

As in the government of our country, so with our association, rotation in representative delegates in office would prove salutary and promote accessions to the membership. The American Medical Association should be so governed that it would draw into its fold all of the regular ethical medical profession and take care of all real medical interests promotive of the welfare of the entire profession and the highest welfare of all the people.

A recent court decision has hit the A. M. A. a serious blow in declaring the association methods illegal and especially in deciding that every member should have a vote.

THE COST AND CARE OF INSANITY AND IDIOCY, these numbering in the United States about a quarter of a million and the expense amounting to about sixty millions annually, suggests a rational government effort at prevention, beginning at our ports of immigrant entry and continuing with marital prenatal eugenics.

The child has a right to be born free of these psychic hardships and the nation in self-defense of its future existence must prevent by suitable hygienic and other legal measures the propagation of mental defectives too many of whom even now exercise the election franchise. Surgery has remedies of prevention and the law can apply them and others to prevent the menacing annual crop of imbeciles and mentally unstables who escape asylum commitment, from propagating their unstable and perilous kind.

THAW HAS THREATENED TO KILL DR. FLINT because the doctor testified and has subsequently maintained that Thaw was insane. If Thaw and White had been vasectomized in early life the Stanford White murder would have never happened and Thaw would have been more stably brained. Timely oophorectomy in many women of our time would also prevent much crime and divorce.

DR. EDWARD CHARLES SPITZKA, personally well-known to the editor of this magazine, died at his home in New York, January thirteenth.

He was a distinguished cerebro-anatomist, pathologist, diagnostician, practitioner and author.

His brain is bequeathed to the famous Baugh Institute collection for scientific study. His eminent cerebro-anatomist son, Dr. Edward A. Spitzka, will make the examination of his famous father's brain.

The deceased Dr. Spitzka achieved special notoriety and eminent consideration in the famous Guiteau trial

for the murder of President (General) Garfield. But he was renowned for his researches on the brain and as an eminent alienist before this event.

He first described the interoptic lobes in the reptile's brain, showed that there were no pyramidal tracts in the cetacea and added many other facts to cerebro-anatomy and physiology.

In earlier days he was an important contributor to this magazine of the brain and mind.

THE RE-APPOINTMENT OF SURGEON-GENERAL STOKES of the U. S. Navy is advised by the Medical Record on the ground of his proved ability in his post, his able conduct of the navy hospital ship.

We heartily join the Record, one of the very best of our national medical weeklies, in this very proper suggestion. Dr. Stokes is the right man for the place.

SURGEON GENERAL-MAJOR GENERAL W. C. GORGAS.—We congratulate the President, Senate and the people and the Colonel on his promotion to a post he so well deserves.

Having been over the ground ourselves and seen the great sanitary salvation work done at Ancon, Panama and Colon and having learned from personal army experience in camp and field, we know the value of the right sort of medical work and men in the service. The ridiculously and ignorantly absurd estimate of certain field officers concerning the value and rank for service of the medical staff to the contrary notwithstanding.

THE SIMULATION OF ORGANIC BY FUNCTIONAL NERVOUS DISEASES by David S. Booth, M. D.

Is a timely paper from a good source and read before a suitable audience, the Association of Railway Surgeons.

The average surgeon, railway or other, does not know so much of neurology as he should and papers like this one help to enlighten surgeons who need more neurological enlightenment than they generally display in post and pre-operative practice.

The above comments were inadvertently omitted at the time this valuable paper was noticed in the review department of the August number of last year.

HARRY THAW.—While it may be conceded that Harry Thaw, in the sense in which some alienists use the term, was a paranoiac at the time he killed Stanford White and much of his time while under the influence of excessive champagne to which he was much addicted and as he was at the time of the tragedy which ultimated in his conviction regarded as a paranoiac and committed to Matteawan (*παρά* beside, near, *vous* mind—beside or off in mind), it is not wise for such a person to be at large without the asylum restraint which has kept him steady and apparently normal in mental action. We should rather consider Thaw as a paranoid, viz: one liable to go beside himself with passion under drink and from slighter cause than is common to the average human mind.

Such a perilous uncertain person should be under constant personal and legal surveillance for the remainder of his life after such dangerous demonstration of mental instability and he should not be allowed to indulge in champagne suppers and other brain disordering conditions and appetites such as disturbed his mental equanimity to the extent of a murderous brain storm.

Evelyn, his wife, seems to understand him as the paranoiacally inclined victim of the morbidly unstable neurone and dangerous under the mind perverting sway of drink.

A STATE EPILEPTIC COLONY for Illinois is to be established, \$300,000 appropriated.

BEQUEST TO THE ST. LOUIS MEDICAL SOCIETY.—The Medical Fortnightly informs us that the St. Louis Medical Society is the fortunate recipient of a bequest from Mrs. Francesca Bartscher as a memorial to her son, Dr. Hugh Bartscher, who died several years ago.

HEALTHY CONSERVATION FROM NOISES that rob weary brains of sleep is as essential a matter of public official concern as forest or water conservation or saving

cotton and grain from the weavel or hogs and chickens from cholera.

Brain saving sleep is worth much to this rushing wearing world of workers with brain and brawn. Recuperative sleep is as imperative as toxine generating outwearing action.

DR. LANGDON announces to the profession the opening of his new consulting rooms at Number 4003 Rose Hill Avenue, Cincinnati.

For those who prefer a down-town appointment, he retains his present city office in The Groton.

Practice limited, as heretofore, to consultations with physicians, and with patients referred by physicians. Patients are not accepted for continuous personal treatment, excepting those who enter by advice of their attending physicians, some one of the various hospitals with which Dr. Langdon is connected.

THE NEW NARCOTIC LAW OF PENNSYLVANIA prohibits the indiscriminate sale of habit-forming drugs, except upon the prescription of a physician, dentist or veterinary, but does not prohibit the public from getting those legitimate preparations containing certain specified minimum quantities of these drugs.

FOR AN AMERICAN PHYSICIAN it is an unpardonable sin of omission not to be familiar with the writings of that wonderful medical pioneer, Benjamin Rush, and not to have perused the most monumental work ever penned in the West, the "Diseases of the Interior Valley of North America," by that consummate master, Daniel Drake.—From Mental Hygiene for Doctors.

THE NATIONAL COMMITTEE FOR MENTAL HYGIENE is studying conditions among the insane in the United States, under the terms of a special gift of \$50,000 for the purpose of helping to ameliorate their condition and sending out much valuable literature on the subject.

THE PREVALENCE OF INSANITY.—"While it is generally known that insanity is a very prevalent affliction, it is doubtful whether many people realize that on January 1st, 1910, there were 187,454 insane persons in institutions



in the United States. This number exceeds the combined enlisted strength of the United States Army, Navy and Marine Corps; it exceeds the population of Columbus, Ohio; and it exceeds the number of students who were enrolled in all colleges and universities in this country upon that date."—Rep. Nat. Com. for Ment. Hygiene.

A PROBLEM FOR GYNECO-PSYCHOLOGISTS.—Five male children, all perfectly formed, were born at Abbeyville, La., Jan. 2, to Mrs. Audrey Lassen, wife of a carpenter. Two of the children were dead at birth, but the others lived. The babies were born at intervals of from five minutes to more than an hour. The smallest of the children weighed 22 ounces, and the largest tipped the scales at slightly over 5 pounds. Physicians in attendance say that other than the unusual number of the children there were no abnormal circumstances attending the birth. Mrs. Lassen had three other children, two of them twins and born two years ago. All three of these are boys. She is 28 years of age, and her husband is about four years her senior. Mrs. Lassen weighs nearly 200 pounds, while her husband weighs 140.

LECTURES ON INEBRIETY.—The University of California has announced a course of ten lectures on the various aspects of alcohol.

In the reminiscences of a doctor who died long ago, was found this very significant sentence: "When a medical student in 1806, I was very much impressed with Dr. Rush's lecture on Alcohol, in which he described its pernicious effects and special dangers to medical men. This has kept me a temperance man all my life."

In 1890 Dr. Crothers gave a course of four lectures in the Vermont Medical University at Burlington, Vt. The next year he repeated this course in the Albany Medical College. In 1900 the New York School of Clinical Medicine created a chair of spirit and drug neuroses and appointed Dr. Crothers as teacher. For four years he gave courses of four or five lectures each year to small classes of medical men.

In 1912 The Boston College of Physicians and Surgeons created a distinct chair for the study of drink and drug neuroses and Dr. Crothers was appointed the professor. From that time to the present he has made inebriety and alcoholism the subject of eight or ten lectures each year.

THE "FRIENDS'" ASYLUM FOR THE INSANE, Frankford, Philadelphia, in 1913 completed the one hundredth anniversary of its existence.

It was founded by the Society of Friends in Philadelphia for "Friends" but its scope in 1834 was enlarged to include all who might seek its beneficent aid as is done without discrimination today.

Its management wisely and intelligently propose to change its designation from asylum to that of hospital or some other name less suggestive of a mere place of confinement and restraint for the insane.

It is a beautiful and attractive and restful home and hospital combined—a really beautiful and well adapted place of treatment and rest for the mentally maimed—a true psychiatrone where the brain weary and perturbed in mind may find hope and rest and recovery.

THE WASHINGTON SOCIETY OF NERVOUS AND MENTAL DISEASES has inaugurated its seventh session by re-electing last year's officers as follows: president, Dr. Tom A. Williams; vice-president, Dr. W. M. Barton; secretary, Dr. W. M. Hough.

The society has a limited membership but welcomes physicians and surgeons interested in neurology and psychiatry.

EX-PRESIDENT TAFT, finding it necessary to reduce his superabundant adipose, consults a regular licensed physician for treatment, not an advertising quack or faddist. All presidents have not been so considerate of medical regularity.

DR. JOHN GREEN, an eminent oculist of St. Louis of distinguished success in practice, who died December seventh, 1913, bequeathed his medical library, which included also the library of his uncle, Dr. John Green of

Worcester, Mass., to the Worcester District Medical Society.

Dr. John Green having been a practitioner of over half a century and his uncle having practiced medicine near that length of time many rare out of print medical books were in the collection.

THE LONDON HOSPITAL condemns very justly the spectacle of British prudery, which is afraid to let scholars read Havelock Ellis' "Psychology of Sex" at the author's expense (for he offered, it seems, to present that perforce foreign published work on condition it were catalogued, only to be refused), as lowering the national prestige more than a good many foot-races lost at Olympic Games. Indeed, the London Library stocks standard books like that just mentioned, and is not afraid to say so.

"As a result," it says, "the Royal College of Surgeons library cannot make up to medical men for the deprivation they suffer because of the old-maidishness in vogue at the British Museum, etc."

WELLS HAWKE'S BRAIN BREAK last December, was displayed by the throwing of his clothes out of his window at the Marlborough-Blenheim Hotel, New York.

This peculiar symptom of insanity displays itself in certain insane persons not only in divesting their bodies of personal clothing but in clearing their rooms of everything in them, as though they realized that they wanted an open field and fair play. It suggests a sense of psychic apprehension though it is not displayed in this manner by all insane persons nor by even the majority.

So far as we know psycho-diagnosticians have not discussed or explained this peculiar symptomatic display in psychopaths, yet it is common, (and in weather when the narrow windows of the asylums are open) for the ground under certain patient's rooms to be strewn with sheets and other bedding, etc., just as a sane man about to engage in a fight proceeds to strip himself of cumbersome garments.

THE UNSTABLE PSYCHIC NEURONE is much in evidence in this non-restraint country of ours where too

many of its ignorant erratic people do too much as they please regardless of the welfare of others. These impulses rather than regulating reasons govern conduct. With less neuropathy and more neurotone and consequently more stable brains and steadier mind the automobile speed fiend and other accident engenderers. Accidents generally (not all of course) result from some unforeseen, uncalculated, but not always uncalculable, circumstance or omission of essential precaution resulting from brain tire, brain fag and mind omission. The misplaced switch, the disremembered time, the forgotten order, etc., are often due to under tone of brain duty enforced or dissipation caused engendered loss of sleep or voluntarily by over-work or by dissipated rest time, by care, worry, alcoholism or other exhaustion in the worker or by epileptoid transient lapses of consciousness which overstrain of brain brings on in some.

DR. T. D. CROTHERS, OF HARTFORD, has been re-elected president of the New York Medico-Legal Society for the third time. This is a great compliment and evidence of the esteem in which he is held in medico-legal circles in New York and the East.

Probably no man in this country has done more to develop the scientific study of the drink and drug neuroses in his work as Supt. of Walnut Lodge Hospital, and editor of the *Journal of Inebriety*. Through his books and writings he has roused new interest in the subject and attracted attention among the leaders here and abroad. —Hartford Evening Post.

A COMPLIMENT TO THE EDITOR and his work. A friend sends us the following for which we return thanks and acknowledge appreciation:

"In presenting a paper contributed by Dr. C. H. Hughes of St. Louis, Mo., at the recent meeting of the American Society for the Study of Alcohol and Other Narcotics, the president said, 'we feel highly honored in presenting a paper from one of the great neurological pioneers in the Southwest. Long ago Dr. Hughes called attention to the disease of inebriety and defended it in

papers before societies, before this association was organized. He saw with a marvelous instinct the facts that we have been urging through the long years, since 1870, and he has been a student and teacher of these truths in his college lectures and in the journal of the *Alienist and Neurologist*, of which he is editor. Beyond this topic Dr. Hughes has made a reputation both here and abroad for exhaustive studies along these and other lines of neurological studies."

A GOOD COLLEGE MOVEMENT.—"Detroit College of Medicine and Surgery request the pleasure of your presence to inspect the College building and newly equipped laboratories January 1st, nineteen hundred and fourteen." (Letter to the editor.)

While regretting our inability to be present we cordially commend this effort of this excellent college to familiarize the profession with its equipment and efforts in the line of right scientific medical advancement.

The profession should take pains to familiarize itself with what the colleges are doing and not rely on the grading of politically appointed boards, some of which are liable to be non-expert and not above mediocracy judges.

We want good colleges and to know the real value of the A. B. C. gradings of state politically appointed Boards of Health.

A PANAMA CANAL ENGINEER BECOMES INSANE.—Lieut. Col. David Dubois Gaillard, of the United States Corps of Engineers, returned last August from Panama, suffering from nervous breakdown and mental trouble. He was taken to Phipps Psychiatric Clinic for the Insane of Johns Hopkins Hospital.

The breakdown is attributed to the trying climate and anxiety caused by slides in the Culebra cut. Lieut. Col. Gaillard has been in charge of the central division of the work.

With right living, a largely vegetable and fruit diet, without alcoholics, reasonable rest and hours of work, the climate, since Col. Gorgas' great sanitary achievement in abolishing malaria and the yellow fever mos-



quito, living ought to be as safe as anywhere at Panama. We found the climate delightful during a recent winter visit.

URBAN QUIETUDE lately engaged the attention of a legislature and a court in this country relative to the early cock crowing.

A Chicago court decided that chanticleer must not crow before six a. m. to the annoyance of a complaining neighbor, notwithstanding the annoyed neighbor himself opened the muffler of his auto car at midnight to the discomfort of the rooster's owner.

It is good to see the people of this restless, rushing country awakening to the need of needless noise suppression and recuperating quiet and rest betimes before neurosis and neurasthenia, which Europeans call the American disease, become universal among us.

When will the railways and factories moderate their whistles and the street cars abate their screeching steel wheels and jungling trucks on steel rails and the factories be brought to sanitary reason as to smoke and steam whistle noises?

PUBLIC PROTEST AGAINST NOISE.—Apropos we note the Sunday Post-Dispatch quotes a three column contribution from Frank Putnam's City Government in Europe including also germane views of the alert and able health commissioners of St. Louis.

If we aspire to have the possible most healthful as well as beautiful cities in this land we must suppress the needless noises, for though the past anti-noise campaigns in American cities have not been wholly fruitless, yet they must be more fruitful. Needless noise must be minimized if not abolished altogether.

"City noise," Dr. M. C. Starkloff, city of St. Louis, as Health Commissioner, says, "is undoubtedly one of the problems to be solved in working out the whole question of the public health. Unnecessary noise has long been regarded as a nuisance, and has sometimes been legislated against on that ground. Now we come to the point where we recognize that it is a question of health.



"The needless blowing of factory and steamboat whistles, the rattle of trolley cars at crossings, the rumble of trucks on pavements, all mean wear and tear on the nerves of the more nervous sort of persons. Some persons seem to have no nerves, so far as noise is concerned. They could live in a boiler shop and never be disturbed. But others do mind the noise, and never get wholly used to it. So that the noise is a tax on vitality, and in so far as the noise may be unnecessary, it is an unnecessary tax.

"The Board of Health has considered this problem, and there are things which could be done, if the proper authority were given, toward abating noise as a measure of health. But at a time when people resist such necessary ordinances as those for the screening of fruit and vegetables and the muzzling of dogs, and when the city's lawmakers receive sanitary measures like the bread-wrapping ordinance with indifference, it is questionable how much the health authorities could accomplish with a matter whose importance is generally so little realized as the noise question."

To this arrangement might be added others, viz: the procession over granite block paved streets such as Vandeventer Avenue, of the city garbage carts with their loud talking negro drivers, when they might parade over more than one street of the city's west end, the long string of heavy meat wagons and the howling newsboys on the street corners for which Putnam over kindly apologizes.

The London plan of displaying the paper in front of their chests is better and more sanitarily sensible.

PSYCHIATRY IN PEDAGOGY.—Right pedagogics for this country from the standpoint of practical psychiatry, that is: the eugenic care of the American mind of this conglomerate people, with a view to the rearing to maturity and of the duties of strong brained rightly trained citizens for the right comprehension and support of true liberty and fair free government is a matter to be considered deeply and promptly and promoted.

The Republic needs strong developed minds with bodies to sustain mental action, trained as thoroughly and as early as practical in the right use and understanding of the mind's powers with reference to personal and political welfare. And the holding back of the minds, especially of those who have not the means to pursue a long and expensive curriculum of preliminary detail study, cuts out too many meritorious and inherently powerful minds from fair chances to make themselves great. Mind merit of capable brains should have no needless barriers in its way to powerful and reasonably early development.

To this end and aim the view of Albert in the Selections Department of this journal appears to be specially valuable reading.

A WIDOWED VICTIM OF MECONISM of a Southern born and white anti-miscegenation family and mind, lately married her negro nurse. A negro clergyman tied the knot and a court awarded her property to her black husband.

Prima facie this lady, judging from her antecedents and normal character was not in her right mind at the time she gave matrimonial consent. It is not impossible for such matters to be preceded by a ravishment and to make partial amends it would not be impossible for a person in a state of opium psychopathy to imagine that a marriage might make amends for her *faux pas*. Cases like this should have medical inquiry by a competent medical psychopathically expert commission before final judicial decision. This lady was probably *non compos mentis*.

ERRORS OF JUDGMENT CONCERNING INSANITY by pseudo-alienistic experts are often like those the negro made concerning Chief Justice Marshall, one of the ablest jurists on the U. S. Supreme Bench.

According to the Christian Register "the Chief Justice was driving over a wretched road, and his horse turned aside so that a sapling prevented him from turning either to the right or left. The judge, engrossed in thought

knew not how to get out, until an old negro came along, and said 'Marster, what fer you don't back your horse?' 'That's true,' said the judge; and, after taking his advice, he felt in his pockets for change, but no change was there. 'Never mind, old man,' he said to the negro, 'I'll leave some money for you at the tavern.' When the negro called and received his present, he commented on the judge thus: 'He was a gem'man for sho'; but,' he added, patting his forehead, 'he didn't have much in here.' "

AMERICAN COLLEGE OF SURGEONS.—The object of the college is most worthily to elevate the standard of surgery by establishing a standard of competency and character for practitioners of surgery, to provide a method of granting fellowships in the organization, to educate the public and profession to understand that the practice of surgery calls for special training, and that the surgeon elected to fellowship in this college has had such training and is properly qualified to practice surgery.

It is high time such an organization existed. The character and well-known qualifications of the leading surgeons connected with the worthy organization gives promise of great good and the assurance of greater safety to a bleeding public than it now enjoys from the too promiscuous and unwisely directed use of the knife.

TARDY ACKNOWLEDGMENT OF AN INVITATION to be present at the opening exercises of the Henry Phipps Psychiatric Clinic, established and erected by Henry Phipps, Esq. of New York, as a department of Johns Hopkins Hospital and of the university to promote the study of mental disease and their early treatment, is made.

While unable to be present on the important occasion, we take pleasure in noting this great salutary movement in medical teaching and rescue work in behalf of humanity. The study of the human mind is not only the noblest branch of medicine, as de Groot wrote years ago, but the salvation of minds is the saving of nations. Psychiatry has been too long, too lightly considered in the practice

of medicine. This medical oversight inspired the founding of this magazine, four and thirty years ago.

IN MEMORIAM OF DR. JAMES P. TUTTLE.—Dr. Joseph M. Matthews pays a just and well-merited tribute to our good friend whose initial studentship days were spent in our office, and at my house in St. Louis. He and my wife were first cousins and we knew him well.

Dr. Tuttle was of the stuff that worthy and capable physicians are made. He was the soul of honor and diligent, almost to a fault, for he spared not himself in endeavor for proficiency and faithful service such as our day demands of the true physician. He labored to his own hurt. But he accomplished.

He was modest and unpretentious in demeanor but great in achievement. His great work "Diseases of the Anus, Rectum and Pelvic Colon" is an imperishable memorial to his industry, enthusiasm and skill in his special line of work but no more enduring than his good name and Golden Rule observing character and fame.

WEIR MITCHELL DEAD.—The death of our eminent colleague and collaborator in neurology at the ripe age of 83 years at his home in Philadelphia is a loss to the profession and to science and literature which will be seriously felt. He was noted for his knowledge and skill in neurology and for fluency of speech of tongue and pen in the higher walks of medicine and literature. The rest cure for the brain fagged was a special feature of treatment in his practice and fat and blood and how to make them attracted much attention among his professional brethren as well as his literary novels "Hugh Wynn," etc. A bit of humor at the expense of Dr. Wm. A. Hammond when Hammond was at the zenith of his literary renown after Hammond had written his well-known treatise on diseases of the nervous system was the remark Mitchell made that Hammond was excellent with fiction. It was then being said by some rivals that Hammond made up some of his clinical records. These slanders may have inspired Hammond's "Robert

Severne, his Friends and his Enemies," written about that time.

A DIPLOMA OF HONORARY MEMBERSHIP in the Academia Physico-Chemica Italiana of Palermo with medal of the first-class is hereby acknowledged with grateful appreciation.

This distinguished society has done and is doing great work for science and human welfare thereby promoted.

The distinguished and most worthy names of Marlotti and Bandero, known and appreciated world wide for their work and zeal in this branch of science tributary to medicine appear on the parchment to our great gratification. They are worthy and honored names in an honored and worthy place.

THE EDITOR ACKNOWLEDGES WITH THANKS the receipt of the Diploma of Honorary Membership and a previous one of active membership in that most worthy, eminent and humane organization, The International Medical Association for Aiding in the Suppression of War, now so worthily presided over by our eminent colleague in the profession, Dr. T. A. Riviere. To this diploma the name of the distinguished Dr. Mazevy is also attached as secretary.

We wish the great and good cause for which this worthy association stands and labors the early fruition of perpetual world peace.

IT IS OBVIOUS that money spent for the prevention of insanity will be a saving of intelligence as well as money to the state, but in spite of this fact thousands of dollars are spent in housing terminal cases and in laboratories for the study of pathology, and, with two or three exceptions, there is not a state in our union that is spending any money in organized prevention. In closing my paper I quote the following from the 6th Annual Report of the Trustees of the State Lunatic Hospital at Worcester, Mass., for 1838, of which Horace Mann was chairman. They say: "The great object at the hospital is the cure of insanity or the mitigation

of its sufferings. The great object of the state and of individuals should be its prevention. The hospital is succeeding preeminently well in accomplishing the former; what can be done by the state and by individuals to effect the latter purpose?"—Dr. L. Vernon Briggs' concluding note to article in Oct. Jour. Insan. on Problems with the Insane.

RECOVERIES FROM INSANITY.—"Recovery, when applied to insanity, is somewhat a relative term. Each individual possesses his own standard of intelligence. What would be considered recovery in one case would not be in another. In short, insanity is a departure from one's normal mentality; consequently, we consider a case as having recovered when he is restored to his own peculiar normal mental condition. Insanity is a very curable disease when treated early and properly.

"Of cases given proper institutional care and treatment within the first month of the first manifestation of mental aberration, from seventy-five to eighty per cent will recover, but unfortunately it is rare for cases to be sent to a hospital in the earliest stages of the disease.

"The foolish odium attaching to being sent to a hospital for the insane is responsible for more chronic and incurable cases of insanity than any other one cause. In this day of enlightenment it is strange that people still cling to the idea that insanity is some kind of a mysterious disgrace, instead of accepting the scientific conclusion that it is only the result of disease."—South-western Texas Insane Asylum Report.

Eccentric people after insanity, if fully recovered, are apt to return to their normal eccentricity of character. Chronic incurable insanity usually comes about through neglect of right treatment away from home and in the hospital in its early stage.

SEGUIN-MONTESSORI METHOD WITH IMBECILES AND OTHERS.—"The recent publication in this country of an English translation of 'The Montessori Method' has spread far and wide a great curiosity to learn about, and



a consequent knowledge of, this system of training and instruction.

"In the introduction, by Professor Holmes of Harvard University, credit is given for the fact that 'much of the material used by Dr. Fernald at Waverley is almost identical with the Montessori material,' and then, parenthetically, 'it may interest American readers to know that Seguin, on whose work that of Dr. Montessori is based, was once head of the school at Waverley.' In other words, the 'method' which is now in the minds and on the lips of every progressive educator is one which for sixty years has been quietly used in your school for the feeble-minded at South Boston and at Waverley, and practically every one of our children has been taught by the Seguin method. The impress of Dr. Seguin has never left the school. His influence as an educator was lasting and far-reaching.

"Further than this, from the elementary system has been developed the varied training, instruction and occupation practiced in the manual training rooms at Waverley and in the open air on the farms at Templeton."—65th Annual Report, Waltham, Mass. Sch. for Feeble-Minded.

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## CORRESPONDENCE

REPUTABLE MANUFACTURING PHARMACISTS DO NOT FURNISH EMMENAGOGUES FOR IMMORAL PURPOSES.—Recently one of the leading manufacturing pharmaceutical houses received a letter upon the letterhead of a retail druggist, but signed by another name followed by the word “druggist.” The person signing the letter may have been a clerk or successor of the druggist. The letter was as follows:

“There is practically no sale for your Emmenagogue Improved Pills, as few ladies know anything about them, and we can give no advice, as we know nothing about them ourselves as to dose, etc. Please let us know by return mail and tell us how to use, dose, etc.”

Reply was made to the pharmacist whose name was on the letterhead, and was as follows:

“We have our doubts about Mr..... being a druggist, for we cannot imagine any druggist not knowing that it is not only immoral, but criminal, to sell an emmenagogue except upon a physician’s prescription. We believe that every druggist who sells an emmenagogue direct to the consumer is put upon his notice that it will be used for an immoral and criminal purpose. Emmenagogues on our list are intended exclusively for the prescription trade and we never knowingly sell them for popular use or to be recommended and resold as remedies for female complaints, etc.”

## REVIEWS, BOOK NOTICES, REPRINTS, ETC.

DANVERS STATE HOSPITAL LABORATORY PAPERS, 1910, Charles Whitney Page series, reprinted from the Boston Medical and Surgical Journal and now offered in book form, is a collection of valuable contributions to the literature of clinical psychiatry of such merit that it should grace the library table and shelves of every physician. The handsome, searchful, intellectual, psychiatric face of the editor, Dr. Charles W. Page, appears on the first page. Dr. Page contributes the first article. The other contributors are E. E. Southard, L. B. Alford, A. S. Hamilton, Anna H. Peabody, Albert A. Horner, Myrtelle M. Canavan, E. T. F. Richards, F. Robertson Sims, Gordon T. Brown, Newell B. Burns and Herman M. Adler.

The subjects are: Laboratory Work of the Danvers State Hospital, Margin of Error in the Diagnosis of Mental Disease, A Study of the Dementia Praecox Group, in the light of certain cases showing anomalies or scleroses in particular brain regions; Ten Obscure Cases of Mental Disease, An Histological Study of the Thyroid Gland in Mental Disease, Incidence of Heart Disease in Acute Psychoses, Bacterial Invasion of the Blood and the Cerebrospinal Fluid by Way of Mesenteric Lymph Nodes, Bacillary Dysentery at the Danvers State Hospital, Massachusetts. Organisms Recovered from Dysentery Cases Studied Bacteriologically, The Persistence of Agglutinins for B. Dysentery in Danvers Hospital Cases, together with a series of Conglutination Tests, Mannite and Non-mannite Fermenting Organism in a Case of Dysentery, complicated by hemorrhagic endometritis probably due to a third organism, Primary Adrenal Tuberculosis in a Case of Juvenal General Paresis, Case of Autochthonous Sinus Thrombosis, Diagnosis of Fractured Skull

as aided by the finding of brain tissue in the vomitus; Note concerning brain and other visceral weights in sixty-six subjects showing carcinoma or sarcoma; Some Effects of Overfeeding with Fats in Certain Cases of Insanity.

CONCERNING LABOR SHIFTS.—“The combined effect of the twelve-hour day and the day-and-night alternation of shifts in the continuous industries is to produce a class of men who can be regarded as but little better than slaves to the machines which they operate. They are worn out more rapidly than were the slaves on the Southern plantations, and more effectually debarred from the common pleasures of life than many of the prisoners in our penal institutions,” said Basil M. Manly, special agent of the federal bureau of labor in the recent investigation of the iron and steel industry. “The twelve-hour worker,” continued Dr. Manly, “has no time for recreation, no time for friends, no time for his wife, no time for his children to whom he is a dull stranger who comes and goes and whom they see less frequently and know less intimately than their school teacher.”

That the shorter work day is more economical as well as humane was the declaration of S. Thurston Ballard, flour manufacturer of Louisville, Kentucky, and member of the Federal Industrial Commission, who has had the eight hour shift system in operation since July 1, 1907, while all other flour manufacturers work their employees two shifts of twelve hours each. “While on two shifts we had 22 men on each watch, making 44 men to pack our output in twenty-four hours,” said Mr. Ballard, “but when we changed to the eight hour basis we required only 15 men to a crew, or 45 men in all, so that practically the same number of men were able to do the work. A man doing active or laborious work can do as much in 8 hours as he can in 12. We pay our men the same wage for eight hours of work that we formerly paid for twelve. In quality of output, in steadiness of

running, in loyal workmen contented and pleased with their condition, it has been a profitable investment."

Ample rest and nutrition without alcoholics between shifts conserve energy and increase output capacity and prevent mistakes and consequent accidents in railway service. Neither brain nor brawn are perpetual motion machines in human or inferior animal organisms.

CONSERVATION OF THE NATION'S BRAIN POWER.—"If a training in pedagogics gave teachers a clearer and more practical insight into actual life as well as some appreciation of the beginning pathological tendencies of humanity, many failures would be avoided and many difficulties would be overcome."—Krafft-Ebing.

Our conduct and thoughts depend upon the capacity of our nervous system. The Brain is the individual—by it man lives, moves, and has his being. Education is the process of training the Brain and Nervous System by study and discipline. The aim of an education should be to develop the capacity of these organs to the utmost.

Personal achievement measures the efficiency of any individual's brain. National greatness is an index of the citizen's brain-power.

Social reforms have for their object the improvement of human conduct. In order to understand conduct we must have some idea of the mechanism which determines its character. A few years ago physicians were chiefly occupied in the attempt to cure diseases. Today one of their duties is to educate the public to realize the importance to the individual and the nation of preventive medicine. This remarkable change has been brought about by the study and avoidance of conditions which are the sources of disease.

The advances made during the XIXth Century in the study of the brain and nervous system have been among the greatest achievements of the human race. The application of these discoveries to the study of educational and social problems has only just begun. Already the public is awakened to an appreciation of

the fact that men who are ignorant in regard to all questions connected with the structure and function of the brain are not the men best qualified to speak with authority upon the methods for training these organs. —Drs. Warren, Paton, Dalgren, Cotton, in the Training School.

The preceding extract is a sample from this representative magazine of the Vineland, New Jersey, Training School for the Feeble-Minded.

A COURSE OF LECTURES ON MENTAL PATHOLOGY AND MENTAL AND NERVOUS DISEASES has been inaugurated at the Central Indiana Hospital for the Insane at Indianapolis, Indiana, under the supervision of the board of trustees of which Dr. D. H. Davis is president and of which Dr. George F. Edenharter is superintendent, assisted by his official hospital staff and others. Dr. Max A. Bahr being the clinical psychiatrist of the hospital, Dr. Frederick C. Potter, M. D., pathologist, E. D. Martin, M. D., assistant pathologist.

Dr. Bahr, Dr. Potter, Dr. Martin, Profs. Lindley, Sterne, Hutchins of Indiana University are the principal lecturers. The medical profession and students of medicine generally are invited to attend these valuable lectures so timely and so much needed.

We suggest that lawyers be included in this invitation for many of the latter are an ignorant lot on these matters.

DISEASES OF THE NERVOUS SYSTEM for the General Practitioner and Student by Alfred Gordon, A. M., M. D., (Paris.) Late Associate in Nervous and Mental Diseases, Jefferson Medical College, late examiner of the insane, Philadelphia General Hospital, Neurologist to Mount Sinai and other hospitals, etc., etc., etc. Second edition, revised and enlarged with one hundred and sixty-nine illustrations. P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia, 1913.

This is an interesting and well written book. The text embraces every legitimate subject in neurology up



to date and abounds in familiar and many new pictorial illustrations, not the least interesting being the author's original microscopic portrayals of a spinal ganglion in rabies, also one of the author's, showing involvement of the posterior columns of the cord in lead multiple neuritis. A case of left facial palsy caused by alcohol injected into the left facial nerve is interesting in description and illustration as is also both text and picture of birth palsy.

The many contracture and anaesthesia features of hysteria are especially well shown as well as the author's original drawing and description of multiple neuritis. Lumbar puncture and cerebro-spinal fluid are well and timely discussed as well as paresis and all of the classic nervous diseases.

The neurone doctrine and secondary degeneration are well presented, likewise the author's original illustrations of hemorrhages and descriptions of apoplexias, embolisms and thrombosis.

Though, for want of space, we have not half described in this valuable book the omitted subjects, viz: cerebral localization, inflammation of the brain and its sequences, the colored illustrations, the author's original showing of diplomyelia, porencephaly, amyotrophic lateral sclerosis, his presentation of syphilis of the nervous system, claudication of the spinal cord, tuberculoma of the cord, written and originally illustrated which alone commend the book as meritorious above its price, (\$4.00) for the practitioner and student and even for the neurologist in practice.

The author's treatment of epilepsy, diseases of the cerebellum and brain concussion will interest any physician. But there are other and more good things in this good book than we have space for mention.

THE "WELLCOME" PHOTOGRAPHIC EXPOSURE RECORD AND DIARY, 1914—If brevity be the soul of wit, condensation is the essence of literature. Especially is it so in these hustling days, when leisure is with many people

reduced to a minimum quantity. It is for this reason amongst others that the pocket guide to photography issued under the above title obtains so wide a circle of readers. It condenses into one small volume, clear, definite and precise instructions on a very wide range of subjects. All that long experience has taught the successful worker are here set forth in simple formulae and exact directions. Development, toning, fixing, printing, the various processes of production in warm tones, and colors, and the methods of dealing with errors of technique are explained, particular attention being directed to green and blue toning.

Three editions of the Exposure Record and Diary are published, one for the Southern Hemisphere, one for the Northern, and the third, a special edition, for the United States of America. Obtainable from all photographic dealers. Price 50 cents.

AMERICAN CIVIC ASSOCIATION PAPER ON NATIONAL PARKS.—Ex-President Taft's, Ambassador Bryce's, Hon. Walter L. Fisher's and Mr. J. Horace McFarland's views. This magazine is in accord with the President of the American Civic Association, the Secretary of the Interior and the other eminent gentlemen above named and we would like to see Hahatonka Park in Missouri made a national one.

The conservation of our parks is a national need from a public happiness as well as sanitary point of view. Happiness contributes to health and good health in return promotes happiness.

THE ILLUSTRATED HANDBOOK of the Mental Hygiene Movement and Exhibit we are here noticing is a fit companion of enlightenment on this important subject and ought to be studied and read by all physicians, philanthropists, the judiciary and legislators.

MENTAL MECHANISMS by William A. White, M. D., Washington, is number eight Nervous and Mental Disease Monograph Series and one of the best of that interesting

series for the neurologist and general practitioner. Dr. White's well-known ability as a medical writer has been noted heretofore and the book before us detracts nothing from his well-known capability for instruction in psychiatry.

THE NATIONAL COMMITTEE FOR MENTAL HYGIENE has published a document, entitled, "Summaries of the Laws Relating to the Commitment and Care of the Insane in the United States," compiled by Mr. John Koren, who has made a special study of the subject. This has been issued with a view to securing uniformly good laws in all States, and as a means of raising the standards of care for the insane throughout the country, it being an accepted fact that States with highly developed systems of care and treatment of the insane also have the best and most complete laws on the subject. (Copies of this report will be mailed upon receipt of \$1.00, sent to the Secretary of The National Committee for Mental Hygiene.)

"THE MODERN HOSPITAL."—A monthly international journal devoted to the building, equipment and administration of hospitals, sanatoria and allied institutions and to their medical, surgical and nursing services. Similar in purpose to the "Hospital," London, only less local in its aims.

A long list of papers from competent sources of experience accompanies the preliminary announcement and augurs for the prospective usefulness of this new magazine. There is a place for such a magazine and we wish it success.

THE TRUTH ABOUT WOOD ALCOHOL.—Wood alcohol has been the object of sensational attack by apparently well-meaning, but certainly misinformed persons, who have made the impression in quarters where ignorance prevails that its use even for ordinary industrial purposes is dangerous to health. This conclusion is unfair.

It is a chemical solvent, used in the arts and manufactures and harmless when not evaporated in close places

and extensively inhaled. It is poisonous as a drink and not intended nor adapted for drinking or cooking usage, only fools or crazy inebriates or intended suicides or the ignorant or with intent, drink it.

This pamphlet is a very proper defense of its manufacture.

"THE CULTURE OF JOY."—Jennings and Graham, Publishers, of Cincinnati, Ohio, issue a series of excellent books for the Christian reader and aspirant after the Christian life whose author is Reverend Ora Lee Pride, M.A., B.D. Their respective titles are: "Culture of Joy," "Nature of the Child," "The Master Passion."

These books are suitable for hospital and school libraries and not objectionable reading for most insane asylum patients and especially valuable for certain melancholiacs as well as the general reader. The wounded in spirit and the broken hearted will find the comfort in them that holy scripture imparts.

THE RECTAL PLUG by Rollin H. Barnes, M. D., St. Louis, is commended to professional consideration from what we know of the author's repute and ability in this line of observation and practice.

A METHOD OF OPERATING ON FISTULA WITHOUT CUTTING MUSCULAR TISSUE by Rollin H. Barnes, M. D., St. Louis. This method being by a thoroughly capable practologist, editor of that well-known and worthy magazine, "The Proctologist," ought to receive, as it merits the considerate appreciation of the entire medical profession and especially of all operators in this line of work.

THE INSTITUTION QUARTERLY.—An official organ of the Public Charity Service of Illinois.

The volume before us contains, as have its predecessors a mine of valuable information for all interested in psychopathy, psychiatry and eugenics. The editorial staff is composed of A. L. Bowen, Dr. Frank P. Norbury and Dr. H. Douglas Singer.

Earnest, intellectual and enthusiastic faces adorn the pages of this book and themes vital to human welfare therein discussed will entertain and profit the many institution heads of other States among our many readers.

PROCEEDINGS OF THE MENTAL HYGIENE CONFERENCE and Exhibit at the College of the City of New York, New York City, November 8th to 15th, 1912. "A Sound Mind in a Sound Body."

PHASES OF THE MENTAL HYGIENE MOVEMENT, etc., by Lewellys F. Barker, M. D., President of the National Committee for Mental Hygiene. A good and forceful presentation of a most important subject.

LA SPLEENE. CONTRIBUTION A L'ETUDE DES PERVERSIONS DE L'INSTINCT DE CONSERVATION PAR LE DOCTEUR HENRY LE SAVOUREUX, Interne des Asiles de la Seine et de l'Infirmerie Speciale du Depot ancien Externe des Hopitaux de Paris, Paris G. Steinheil, Editeur, 2 Rue Casimir-Delavigne, 8, 1913. This is a much dedicated book evidencing the author's appreciation of the high sources of his great neurologic acquirement, including the author's mother and many masters psychiatric. The chapters on "l'Ennui Normal" and "l'Ennui morbid" are especially instructive and interestingly portrayed. They will well repay for the reading of the history and clinical records. We commend this valuable treatise to the alienist, the neurologist and the philosophic student of the human mind in its normal and morbid aspects. An apt quotation from Seneca (letter XXIV) to Lucullus, "De la tranquillite de l'aime" adorns the title page of this remarkable book. It is altogether a valuable contribution to the subject of melancholia and allied states and should have a place in every physician's library.

THE TRAINING SCHOOL BULLETIN.—Devoted to the interests of those whose minds have not developed normally. Is worthy of a place on the reading table of every physician and all others who would intelligently

manage or rightly advise or treat the rising generation. Following is a leading sentiment of its pages drawn from ancient history.

"Once upon a time the citizens of a certain city in Greece were greatly interested in the nurture and training of children. When the question arose as to whether they should build a great public school or open a playground, it was decided to open a playground. Now, in the course of years, it came to pass that the citizens of that city advanced so far beyond the rest of the human race, that in all the centuries since, even to this day, the nations that have gone on building public schools and neglecting to open playgrounds have not been able to catch up with them."—Geo. E. Johnson, in the "Survey."

The "Training School" is edited by the author of *The Kallikak Family*, Herbert Henry Goddard. Its motto is "We Believe in Happiness First, All Else Follows."

Eugenics is its worthy aim. Its contents are always instructive in the line of human welfare.

GENERAL INFORMATION REGARDING THE HOT SPRINGS OF ARKANSAS.—Legends and history and details concerning baths, physicians, etc. Issued free by the Department of the Interior at Washington. Physicians having occasion to send patients here for treatment and patients wishing to visit and use the baths should possess this document.

TRAINING FOR CITIZENSHIP.—An article on the Winston-Salem plan of Training for Citizenship. By Leroy Hodges, Petersburg, Va. is a Senate document of patriotic good citizenship purpose, showing the Winston-Salem, N. C., plan of training boys while in business for the obligations and responsibilities of citizenship and to despise the wretched rascally graft methods all too prevalent in our greater cities, for their welfare. This document was presented by Mr. Swanson, September 18, 1913. It ought to have a wide circulation over our crime and graft imperilled country. Honest and true patriotism must be revived for the country's salvation, especially in New York.



THE CARE OF MILK AND ITS USE IN THE HOME.—From U. S. Department of Agriculture, Farmers' Bulletin 413. By George M. Whitaker, in charge of Market Milk Investigations, Dairy Division, Bureau of Animal Industry; L. A. Rogers, Bacteriologist in Charge of Research Laboratories, Dairy Division, Bureau of Animal Industry, and Caroline L. Hunt, Expert in Nutrition, Office of Experiment Stations.

HOW TO PREVENT TYPHOID.—Showing the importance of vaccination against typhoid and other important sanitary measures and dangers of typhoid. By Logan Waller Page, John R. Mohler and Erwin F. Smith.

These are valuable documents for the people but they should come with more force from a medical research department of Health and Sanitation.

From the latter report the following is of special interest:

"This method of vaccination against typhoid fever has now been practiced on a large scale, chiefly in the armies of various nations, with striking results. It failed in the English Army during the Boer war, when there occurred 57,684 cases of typhoid fever and 8,020 deaths. But the cause of this failure is now well-known. It was supposed at that time that the inoculated men were protected by the inoculation, but it is now known that the temperature at which the typhoid cultures were killed for these inoculations was too high (60 to 65° C.). It has been demonstrated repeatedly since that date that cultures killed at this high temperature lose almost all their protective power and the bacterial cultures now used are sterilized at a temperature 10° lower (53° C. for 1 hour).

"But in other places, for instance in the Japanese army at the time of the Japanesc-Russian war, the results were very striking. The Russian army was largely incapacitated by fever, while the Japanese army had practically no cases of fever.

"Recently in the British army in India typhoid inoculation has been practiced on a large scale, and very careful records have been kept of all the cases occurring among about equal numbers of non-inoculated and inoculated soldiers in the same regiments and subject to the same conditions. We now have records for 20 such regiments, and they show that even including one regiment which was inoculated with cultures heated too high the troops which had been inoculated have suffered very little from typhoid in comparison with the uninoculated.

"If we exclude this one regiment and consider the regiments inoculated with cultures subjected to a minimum quantity of heat, there have been about ten times as many cases among the uninoculated."

Valuable sanitary prophylactic measures are recommended in this interesting and important report.

OPIMUM NOT A HABIT-FORMING DRUG.—Morphinism, the Disease, its Aetiology, Pathology, Rational Treatment and Cure. By Dr. C. H. Bartlett, St. Louis, Mo., U.S.A., 1913.

This is a scientific showing of the basis of the so-called opium addiction habit and is, in the sense meant by the author, correct. Regular taking of opium or its derivative salts for a considerable length of time is a disease engendered imperative habit calling for the anodyne and nerve center and peripheral nerve tranquilization which it both relieves and disturbs. Opium is a therapeutic paradox. The author presents his case in its true light, thus:

"The impression prevails, among the medical profession, as well as the laity, that opium, its principal derivative, morphine, and the various other derivatives obtained from the drug, are habit-forming. I fully realize that any statement contrary to the fixed, though faulty, opinion of the medical profession will meet with severe criticism, yet the knowledge gained from long study, and association with those afflicted with that diseased condi-

tion of the nervous system caused by the use of the drug, warrants me in making the statement that opium, its alkaloids and derivatives, are not habit-forming drugs.

"The use of morphine or opium in its various forms, excepting in a measure, opium smoking, does not produce a habit. It is not a habit-forming drug, but is decidedly a disease-producing drug. The exception in opium smoking is made to cover what opium smokers term the 'bunk habit,' the social feature which leads the unfortunate victim to the use of the drug, and smoking the drug produces the diseased condition. The use of morphine or opium in any form, including opium smoking, produces effects terminating in immediate and pronounced pathological changes in the human system, causing a specific disease requiring specific treatment."

The author concludes this valuable brochure with the following human and true professional advice as to treatment:

"When the drug diseased victim appeals to the physician for relief, no matter how hopeless his case may appear, do not turn him aside with the advice, 'quit using the drug, it's only a habit,' but give him the same consideration, kindly treatment and relief that would be given if he were afflicted with any other disease. The physician must be ever mindful that he has a disease to treat and not a mere so-called addiction to palliate."

The author very properly enjoins secrecy in prescribing opiates. A similar principle as to therapy might wisely be followed for the welfare of the subject as to prescribing alcoholics and a similar view also might well obtain among physicians as to the nerve center diseases of habitual and periodic alcoholic inebriety.

LE ALTERAZIONI NUCLEARI DELLE CELLULE RADICOLARI IN SEGUITO A RESEZIONE DELLO SCIATICO.—Dr. Eugenio Aguglia, Assistente. Estratto dalla Rivista Ital. di Neuropathologia, Psichiatria ed Elettroterapia. Diretta dal Prof. G. D'Abundo.

The nuclear changes in the cell are well described with accompanying illustrations. This brochure is of especial interest to the clinical neurologist.

STATISTICAL STUDIES OF THE INSANE.—By J. V. May, M. D., Albany, N. Y. Member New York Hospital Commission.—From *Amer. Jour. Insanity*.

This is a valuable subject ably treated by the author, especially for the alienist and sanitary statistician. The author's observation gives a remarkable showing of recoveries of the psychoses when timely treated after their onset and admission.

Of 627 cases of manic depressive insanity, 235 entered hospitals within 15 days after the onset of the psychoses, 54 from 15 to 30 days, 100 from 30 days to two months. Three and three-tenths per cent recovered within one month, 38.8 per cent after one to three month's residence, 15.6 per cent 4 to 6 month's residence, 12.6 per cent 6 to 7 months, 8.6 per cent 8 to 9 months, 7 per cent 10 to 13 months, 4.5 per cent 14 to 17 months, 4.8 per cent 18 to 24 months, 4.8 per cent were in the hospital more than 24 months; 57.7 per cent of the whole number of cases recovered after a hospital residence of less than 6 months.

CHRONIC INTESTINAL STASIS.—By William Seaman Bainbridge, A. M., Sc. D., M. D., New York City.—In *Maine Med. Journal*.

An instructive contribution for the abdominal surgeon and a suggestive one for the neurologist who considers brain and nerve tone in relation to enteroptosis, intestinal stasis.

LA CYCLOPHRENIE.—(Psychose circulaire) par Theodore Rybakow. Professeur de psychiatrie a l'Universite de Moscou. Directeur de la Clinique Psychiatrique.

This valuable contribution to the literature of psychiatry comes from Moscow in the distinguished professor's tongue. A resume in French also comes with this book so that the French as well as the Russian reader may

enjoy it. The author makes cosmopolitan quotations among which he includes *Alienist and Neurologist* collaborators. This book is worthy of further notice and may later receive the same from us.

PUBLICATIONS OF THE NATIONAL COMMITTEE FOR MENTAL HYGIENE.—Sent upon application, free, or for the price indicated below.

No. 1. Origin, Objects and Plans of the National Committee for Mental Hygiene; the mental hygiene movement; State Societies for Mental Hygiene; information regarding the problem of mental health and the care of the insane.

No. 2. Principles of Mental Hygiene applied to the Management of Children predisposed to Nervousness.—By Dr. Lewellys F. Barker, Professor of Medicine, Johns Hopkins University. (Issued March, 1912.)

No. 3. Summaries of the Laws relating to the Commitment and Care of the Insane in the United States. Compiled by Mr. John Koren. Price, One Dollar, postpaid. (Issued September, 1912.)

No. 4. Some phases of the Mental Hygiene Movement and the Scope of the Work of the National Committee for Mental Hygiene. An address by the President, Dr. Lewellys F. Barker, at the 15th International Congress on Hygiene and Demography, Washington, D. C., September, 1912.

Requests and orders for pamphlets and reports should be addressed to Clifford W. Beers, Secretary, No. 50 Union Square, New York City.

PRINCIPLES OF MENTAL HYGIENE APPLIED TO THE MANAGEMENT OF CHILDREN PREDISPOSED TO NERVOUSNESS.—By Lewellys F. Barker, M. D., Professor of Medicine, Johns Hopkins University Publication of The National Committee for Mental Hygiene.

ORIGIN, OBJECTS AND PLANS of The National Committee for Mental Hygiene.

THE SCIENCE OF HUMAN BEHAVIOR; Biological and Psychological Foundations. Maurice Parmelee, New York: Macmillan, 1913. From the Psychological Bulletin. Review by F. L. Wells.

THE PRINCIPLE OF MENTAL TESTS.—Dr. Frederic Lyman Wells.—From Science.

ON FORMULATION IN PSYCHOANALYSIS.—By Frederic Lyman Wells, McLean Hospital, Waverly, Mass.—From The Journal of Abnormal Psychology, Boston. Oct., Nov.

EXPERIMENTAL PATHOLOGY OF THE HIGHER MENTAL PROCESSES.—By F. L. Wells. From The Psychological Bulletin.

HEREDITARY CHOREA WITH REPORT OF A CASE.—By William A. Boyd, B. Sc., M. D., Westport, Conn. From the Boston Medical and Surgical Journal, November 6, 1913.

REVIEW OF SIGMOND FREUD'S "THE INTERPRETATION OF DREAMS."—F. L. Wells. From The Journal of Philosophy, Psychology and Scientific Methods.

NAVY LEAGUE OF THE UNITED STATES, Washington, D. C. The purpose of the Council of National Defense.

AMERICAN ASSOCIATION FOR LABOR LEGISLATION PROGRAM.

LINKING LIFE INSURANCE COMPANIES TO PUBLIC HEALTH MOVEMENT.—By Engene Lyman Fisk, M. D., Medical Director Postal Life Insurance Company, New York. Read before the Reed College Conference on Conservation of Human Life, Portland, Oregon, May 9, 1913.

THE ADEQUATE PUNISHMENT AND CARE OF DEFECTIVES AND THE INSANE.—Being a reply to the letters of Julius Commedius Brutus. By E. S. Goodhue, A. M., M. D., LL. D., The Doctorage, Hawaii. From The Pacific Commercial Advertiser, Honolulu, Hawaii.



ECONOMIC INFLUENCE ON THE MEDICAL PROFESSION OF THE PERIODIC EXAMINATION OF INSURED LIVES.—By Eugene Lyman Fisk, M. D., Medical Director Postal Life Insurance Company, New York. Address before the American Association of Life Insurance Examiners at Minneapolis, June 16, 1913. Reprinted from the Cincinnati Lancet-Clinic.

SOME REMARKS ON BRONCHIAL OR TRUE ASTHMA.—By Harold DeWolf, M. D., The Glen Springs, Watkins, N. Y. From the Medical Record. A practical instructive paper read before the Schuyler County, New York, Medical Society.

HEALTH CIRCULAR.—Health Department of St. Louis. A good advice concerning eyesight.

CIRCULAR OF THE SCHOOL FOR HEALTH OFFICERS, September, 1913. Harvard University and Massachusetts Institute of Technology catalogue and announcement.

DYNAMIC PSYCHOLOGY.—By Dr. F. L. Wells, McLean Hospital.

PSYCHOLOGY AND THE MEDICAL SCHOOL.—By E. Stanley Abbot, M. D., Pathologist and Assistant Physician McLean Hospital, Waverley, Mass.

SOME PROBLEMS OF THE INSTITUTION LIBRARY ORGANIZER IN THE STATE HOSPITALS.—By Edith Kathleen Jones, Librarian at McLean Hospital, Waverley, Mass.

THE SURGICAL TREATMENT OF CHRONIC INTESTINAL STASIS.—By William Seaman Bainbridge, A. M., Sc.D., M. D., New York. Professor of Surgery, New York Polyclinic Medical School and Hospital, New York City. From The American Journal of Gastro-Enterology.

ORIGIN, OBJECTS AND PLANS OF THE NATIONAL COMMITTEE FOR MENTAL HYGIENE.—The Mental Hygiene Movement, State Societies for Mental Hygiene, Description of Mental Hygiene Exhibit, List of Publications.

Published by The National Committee for Mental Hygiene, 50 Union Square, New York.

SUMMARIES OF LAWS RELATING TO THE COMMITMENT AND CARE OF THE INSANE IN THE UNITED STATES.—Prepared by John Koren for The National Committee for Mental Hygiene. Published by The National Committee for Mental Hygiene, 50 Union Square, New York. Price: One dollar, postpaid.

Contains valuable information for all interested in the removal to or from hospital or sanatoria and the care thereof, medical and legal.

LE SYNDROME ATAVISME ou Zoanthropoidisme Mental, par le Dr. Paul Courbon, Medecin de l'Asile d'Alienes d'Amiens. XXIIe Congres des Alienistes and Neurologistes, Tenu a Tunis. Paris, Plon-Nourrit et Cie, 8, rue Garanciere—6e, 1913.

RAPPORT SUE LE TRAITEMENT DES MALADIES DES PAYS CHAUDS DANS LES STATIONS THERMALES ET CLIMATIQUES.—Par le Dr. Edmond Vidal, Medecin Consultant a Vichy. IXe Congres International d'Hydrologie, de Climatologie et de Geologie, Madrid, Octobre, 1913.

HUMANIZING CRIMINAL LAW.—By Arthur MacDonald, Washington, D. C. Author of *Juvenile Crime and Reformations*.

AFFEZIONE DEL CONO MIDOLLARE IN SEGUITO A RACHIOSTOVAINIZZAZIONE.—Pel Dott. Eugenio Aguglia, Assistente. Estratto dalla Rivista Ital. di Neuropathologia, Psichiatria ed Elettroterapia. Dirretta dal Prof. G. D'Abundo, Fasc. 9, 1913. Istituto di Clinica delle Malattie Nervose e Mentali e di Antropologia Criminale delle R. Universita di Catania diretto dal Prof. G. D'Abundo.

Prof. Abundo needs no further commendation other than his name as our Italian readers will appreciate who have read other contributions from his experience and his facile and instructive pen.

THE INTERVERTEBRAL FORAMEN.—An Atlas and Histological Description of the Intervertebral Foramen and its adjacent parts; by Harold Swanberg, Member of the Am. Assn. for Advancement of Science, with introductory note by H. A. Santee, A. M., M. D.

Illustrated by sixteen pages of plates from the best halftones printed on engraver's proving paper. None of these plates have appeared before, being especially engraved for this work. Text is on best book paper and covers over 100 pages 6" by 9". Elegantly bound in silk. \$3.00 postpaid. Chicago Scientific Publishing Co. This is the only book on this subject extant. The introduction by Professor Santee is a special commendation for this book.

Professor Santee's introductory note and the author's preface shows this book to be unique and largely original.

Though the field of this book is restricted, it is sufficiently broad to form the anatomic basis for several schools of practice. Mr. Swanberg shows by actual sections the exact relations of the first dorsal nerve at the intervertebral foramen. A study of his work will help to determine whether compression of the nerves at this point is likely to occur; and whether, therefore, there is substantial ground for the doctrine that such compression is the immediate cause of all or of a considerable number of pathologic conditions, claimed to exist by schools of chiropractice and osteopathy so-called.

Here are 2 pages  
of the new edition of  
“Formulas for  
Infant Feeding.”  
There are 60 more  
pages just as inter-  
esting and helpful  
.... and a copy can  
be had without  
cost.

Mellin's Food Co.,  
Boston, Mass.

### Constipation (Continued)

To overcome this form of constipation, an increase in the amount of Mellin's Food, because of its softening effect upon the casein of the milk, is usually sufficient (see high carbohydrate formulas commencing on page 22). Where the difficulty is pronounced, it may also be necessary to reduce the proportion of milk temporarily. The use of top milk is sometimes beneficial, more especially with young commencing (see top milk formulas commencing on page 29).

**Fat.** When constipation is due to the fat not being properly digested the stools are light soap in color, greasy, shiny and not like. The odor is sour, and urine particularly offensive. Repeated regurgitation or spitting

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### Constipation

Constipation may be due to imperfect digestion of the protein, or of the fat. Starchy foods often cause this of constipation are a diet too low in total solids, insufficient muscular contraction of the intestines due to lack of energy, and retention of the feces so long, leaving a dry hard mass, difficult to expel.

**Protein.** When constipation is caused by the protein of the milk is caused by the casein of the milk not being properly digested. The stools are hard, dry, friable, odor easily broken down. The casein is often foul or putrid — sometimes very offensive. Distention of the abdomen, gas, colic and general discomfort after eating frequently accompany this condition.

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THE INFLUENCE OF SUBTLE AND UNDETERMINED FORCES IN THE ESTABLISHMENT, DEVELOPMENT AND MAINTENANCE OF RACIAL CHARACTERISTICS.

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*"There is no chance in results."—Emerson.*

**M**ANY of the ethnological distinctions and differences which have arisen in the gradual evolutionary processes affecting mankind, are easily traced to their causes by scientists and historians, but there are other important ethnic variations and modifications which do not so readily yield the secret of their action even to the most careful and assiduous student of the subject.

Like all unrevealed and unexplained manifestations of cause and effect, to the untrained mind they have become mysteries; to the scientist, problems.

We are fairly agreed upon the fact that, notwithstanding our inability to determine the cause of a particular manifestation, the cause still lies anteriorly to the effect, and has acted or is acting in a purely natural way.

We eliminate all occult or supernatural factors as having

no part in the origination or furtherance of material results, offering what proofs we are able to furnish, and acknowledging that what we are unable to explain may be entirely demonstrable at the right time and by the right person.

In the study of racial differentiation out of a homogeneous, primitive ancestry, it is as if one tossed a ball across the yard over considerable inequalities of surface and with an unmeasured force. The ball will go somewhere, at a given speed, over a given course, to a particular point, where it will stop.

Roll the ball a second time with the same approximate impetus, and it will pursue a different course and reach a different destination, and so on for an indefinite number of times the ball varies in its response to impulse.

The end of each career was the physical destiny of the ball and, so far, what shall be always shall be; but the speed, the direction, the distance traversed, and the end of the whole movement, were an inevitable result of certain, unmeasured and unrecorded forces set in motion, and certain unascertained helps and hindrances to these forces occurring along the ball's journey; slight variations in direction and propulsion, irregularities of surface covered, and other unseen and perhaps avoidable conditions affecting the transmission of the ball.

Could the forces have been accurately measured, and the helps and hindrances made exactly alike each time the ball crossed the yard, we should have known each time how and where the ball would go. We should have known to a mathematical degree.

Chance could have no part in the transaction. But as the forces concerned vary with each propulsion, and we become conscious of dissimilar results, we lose sight of the cause in the effect, and say that the ball "happened" to go thus and so.

Without dwelling upon technical nomenclature or fine distinctions in ethnic classification, we may well look upon the apparent and external characters of racial modification as we do upon the progress of our ball; purely the result of forces



which, if they have not been, might be determined and classified.

In dealing with the large question of anthropology and ethnology, a conscientious student feels obliged to accept the conclusions of Darwin and later investigators, who have modified his theories upon the basis of new discovery and collaborative research. If we cannot accept the whole theory of any one evolutionist regarding the differentiation of species, we recognize that in the more distinct modifications of race, selection and variation have been determinative.

Also, we must believe that the action of environment in its influence upon racial variation is less direct and potent than that exercised by ancestral characters in the germ-cell.\*

That physical surroundings have an effect upon not only plant but animal life is obvious to the most casual observer. This effect may show a clear relation to its cause, or such relation may be obscure, yet, as a rule, it is more readily traced to antecedents than is the action of heredity or other physiological influences.

The phenomena furnished by the latter are difficult of interpretation, in the individual as well as in the race.

As Quatrefages says:

"Every movement which takes place in plants appears to be produced solely by inanimate forces. The transfer of matter in particular, which is necessary for the development and sustenance of every vegetable, belongs to actions of this kind.

"Can we believe that these forces, as they are known to us from innumerable experiments, could, if left to themselves, have formed an oak, or even raised a mushroom? Can we believe that they could have organized the acorn or the spore, and hidden in those minute bodies the power of reproducing the parent?

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\*Weissman makes a biological classification. His outline is as follows:

1. Blastogenesis (a) Amphimixis.
11. Somatogenesis (a) Kinetogenesis, (b) Physiogenesis.

"And yet without them the vegetable cannot exist. But, in my opinion, nothing makes their real subordination more apparent than the importance of their part in the process of execution. \* \* \*

"Are we to conclude then that life is an intelligent force, conscious of the part it plays, and enjoying the dominion it exercises over the subordinate inanimate forces? Not at all.

"Like these forces it is ruled by general and fixed laws. Nevertheless, we do not find in the application of these laws, and in the results to which they lead, the mathematical precision of the laws and phenomena of gravitation and etherodynamics.

"Their mode of action merely seems to oscillate between limits which remain impassable.

"This kind of liberty, and the bounds imposed upon it, are conspicuous in the constant diversity of the products of life, a diversity which contrasts in so striking a manner with the uniformity of the products of etherodynamics. Crystals, when similar in composition, and when formed under similar circumstances, resemble each other perfectly; but we never find two leaves exactly alike upon the same tree."

Let us examine briefly a few of the most important physical forces generally regarded as effective in inducing change in the individual. Perhaps of chief importance is geographical position, the place a man occupies as regards altitude, and isothermic influences.

It is well known that altitude, or relative elevation above sea-level, is productive of temporary and permanent perturbations in the human body.

Viault has shown that a residence for two weeks at an elevation of 4,392 meters caused an increase in the red blood corpuscles from 5,000,000 to 7,000,000 per cubic millimeter; in the third week this reached 8,000,000.

A diminished pressure in the atmosphere stimulates the haematopoietic organs. We have, as a result, increased respiration, rapid heart action and, in the unaccustomed, various disagreeable sensations and symptoms, subjective and objective.

Those who reside permanently in elevated regions, become used to the effects of diminished barometric pressure, but give evidence in many ways of physical, physiological and psychic changes brought about by the continued influence of their altered environment.

These changes are generally perceptible and comparatively rapid, giving rise to what are called acquired characters which, in turn, act upon the reproductive cells modifying them more or less, they themselves becoming congenital.

At all the points between sea-level and an elevation compatible with permanent residence, the extent of bodily perturbation is ascertainable, and the various phenomena of heat, moisture, atmospheric pressure, wind velocity, and electrification, may be accurately measured.

Light is a very important influence which is being more and more studied in its relation to animal life, particularly man. We are learning with an expanding knowledge of its chemical properties that its effect upon the individual is probably greater than that of heat or humidity.

The latest experiments with the various divisions of the spectrum, have shown that excessive oxidation of light produces a metabolism which in some conditions of the body is beneficial, but in others, may easily lead to nerve exhaustion.

Actinism being a chemical effect, its constant action produces upon the body a condition of nervous stimulation which cannot persist without becoming irritative and subsequently destructive to living tissue:

"It is well known," says Professor Mathews of Chicago University, "that all the vibrations of the ether will produce those changes in protoplasm which the ions produce, and further, the character of the change in protoplasm produced by light varies with the wave length or the number of impacts per second. Violet light or the ultra violet rays stimulate protoplasm, while the red rays, as a rule, do so very feebly or inhibit movement.

By the electro-theory of light the other disturbances which we call light must be due to the movements of electrons or

changes in the sun, either constituting a part of the sun's atoms, or associated with those atoms. \* \* \* Chemical stimulation and light stimulation are identical."

It has been demonstrated that certain rays of light are stimulating while others are depressing; that constant exposure to these rays induces a condition called neurasthenia, to which may be referred many of the deviations from a normal physical state.

These alterations easily traceable to their cause, give rise to other modifications obscure and erratic in their development. They are probably biologic becoming congenital: they are probably the result of protoplasmic impressions of chemical origin, transmitted from one individual to another, and accentuated by compatible, physiological reactions the nature of which we have not determined.

Doctor Woodruff, in his work on "The Effects of Tropical Light on White Men," says:

"The latest work of our anthropologists is a careful study of each of the characters of each type of man with the purpose of discovering why that character is beneficial in that zone, and why a different character arose in a different zone. It is of vital interest to us now, for it explains why races always fail to colonize in a zone markedly different from the home-land, and it teaches us how we can avoid these causes of death if we are compelled by business to reside temporarily in a climate to which we are physically unfitted. For instance, the shape and size of the nose and position of the nostrils are now fairly well proved to be a matter of selection of fittest variations. In the tropics where the air is hot and therefore rarified, more of it is necessary, and it is essential that there should be no impediment to the air currents, so that the nostrils are open and wide, and the nose very flat. Such a nose is unsuited to cold countries as it permits masses of cold air to flood the air passages, and irritates the lining membrane, so that the nose must be large and have much warming surface, and the nostrils therefore are slender slits to admit the air in thin ribbons easily warmed. The air being cold is con-

centrated, and less of it is needed than in the tropics, and the slender nostril is no disadvantage.

"The nasal index, or extreme width of nose divided by the extreme length, gradually increases as we go from colder to hotter countries, where we find some races with nose index much greater than one thousand, i. e., width greater than length.

"It is now many years since it was first pointed out that the open tropical nostril was one reason for so much pulmonary trouble of negroes out of the tropics. Hence there must have been a natural selection in cold countries of one kind of variations—large contracted noses, and a selection in hot countries of the other extreme, so that the various types gradually arose."

Food, upon which so largely depend repair and waste of tissue, the nutritional adequacy of the various structures and organs of the body, the response in a normal way of nerve cells to stimuli, and the maintenance of organic equilibrium throughout, is a constant and never diminishing necessity. It must be provided if life would be sustained, and its quality and quantity are regulated to a great extent by geographical location.

Where people live determines to a considerable degree at least, what they shall eat, and what they eat affects not only their physical but their ethical, social and moral development.

Another factor in the trend of variation is physical isolation, which exists when a number of individuals of a tribe or group, become separated from their fellows, and remain separated by some permanent barrier. This isolation may be voluntary or involuntary, and is generally due to migration to some remote and inaccessible land, in pursuit of food or adventure.

We have an example of this in the migrations of Polynesians from their distant home-land to the widely scattered islands of the Pacific ocean.

Racial modifications have been great owing to this isolation and changed environment, but it is easy to connect the

various Polynesian peoples through their common language root.

They lived on islands small enough to make each settlement compact, while each archipelago was separate enough to render communication difficult, thus ensuring the preservation of traditions and the emphasis of inherited habit.

In this people particularly may be traced the effect of physiological isolation, producing still greater variation and modification; changes quite obscure and, in their action, too subtle for satisfactory analysis.

Among important forces in the origination, development and persistent of racial variation, is that of climate.

We have lost the pleasant etymological meaning of the word climate (aspect), which may be defined now as the totality of weather in a given geographical area; the condition of a place in relation to the various phenomena such as temperature, moisture, and so on, particularly as they concern animal and vegetable life.

As will readily be acknowledged, the individual is greatly affected by the atmospheric conditions which surround him, and some of the most serious and far-reaching perturbations to which the body is liable are due to climatic mutations.

The pathogenic impressions of a climate possessing a humid day of heat following by a cold night with sensible moisture, are cumulative in their action, demonstrable, and easily recorded, but the ultimate effects, the insidious disturbances of the thermo-taxic function, while appreciable in their totality, are as to action, confusing.

In a paper which should have a larger reading, sent me by Doctor Ferguson of British Guiana, the author, says:

"Nerve centers possess what may be called a memory of their own. The thermo-taxic center possesses also this quality. The sudden exposure of the body to cold results in a reflex action which is not purposeless, but calculated to prevent the loss of heat. This highly complex action is the result of the accumulated experiences of the heat-regulating center, which has been subjected to the same kind of stimulus so



often that it reacts immediately and accurately against it. Here, then, we have three notable properties of this heat-regulating center; namely, its power of inhibiting its own impulses, its liability to be driven into a state of exaggerated irritability, and its capability of retaining something of the impressions it has previously experienced in a manner which amounts to a sort of memory. From the birth to the death of a man, his thermo-taxic mechanism may be said to undergo a kind of progressive training.

"In the foetus this mechanism develops, indeed, but its function is never called upon to exercise its full powers. It remains in abeyance, in a primitive stage comparable to that of the cold-blooded animals; so much so that at the moment of birth it behaves in a way similar to what is observed in the latter.

"Without experience of danger from outside, it does not know how to meet in a homoiothermic manner the variations of external heat. The temperature of the new-born child falls and rises directly with that of the atmosphere. But the heat-regulating center learns marvellously soon to bring into action its latent higher powers.

"From that moment it is engaged in a ceaseless struggle with the variations of external temperature; and its increasing experience renders it ever more and more ready to meet all ordinary emergencies. But when it has to deal with attacks which are unusual either in kind or degree, it must necessarily find itself in situations to which it can adjust itself only with difficulty. It even happens, as has been pointed out, that the center may fail in its efforts at adjustment; and its function may be so deranged as to be thrown into a state of disorder. Even death may be the consequence.

"We have already seen that each individual or race has a certain co-efficient of heat production, the result of accommodation of his system to the climatic conditions in which he normally lives. We may also speak of a co-efficient of heat dispersion, of a capacity for actively throwing off heat under circumstances which threaten to induce its internal accumulation to a dangerous extent. The thermotaxic function of the

northern European is concerned chiefly with the internal production of large quantities of heat and with its preservation from loss, on account of the coldness of his surroundings. That of the dweller of the torrid zone is trained to secure a minimum of production and a maximum of dispersion of heat, because of the hot climate in which he lives. It cannot be supposed that these two could suddenly exchange climates without perplexing, at least temporarily, their respective thermotaxic activities. We are justified in assuming that, when this nervous function by inherited tendency and acquired habit, manages to adjust itself with exquisite delicacy to certain meteorological conditions, it must needs be in danger of a serious disturbance if suddenly exposed to an opposite set of atmospheric states.

"The northern European who comes in robust health to the steamy heat of an equatorial swamp must abstain from hard muscular work, at least for a considerable period of time, if he hopes to find his thermotaxic function accommodating itself gradually to the unaccustomed exigencies of the climate.

"Were he to attempt at once to perform hard agricultural labor under the terrific heat of the sun and in an atmosphere almost saturated with steam, he would expose himself to conditions calculated to upset the physiological working of his thermotaxic mechanism.

"Even the Negro, whose heat-regulating function is fitted both by heredity and acquired habit to withstand high degrees of external heat, gasps when doing hard muscular work at certain hours of the day in an atmosphere the temperature and saturation of which renders the throwing off of blood heat almost impossible.

"But the climate of an equatorial swamp is characterized not only by stifling heat plus steam during the day, but also by atmospheric changes at night which form a violent contrast therewith.

"This nightly fall of temperature is accompanied by a precipitation of the steam of the day into sensible particles of moisture. The humidity of the night, especially from midnight to sunrise, is intense; and the full exposure of the sleep-

ing body to it puts the thermotaxic function to a severe strain in order to preserve from loss the modicum of heat produced internally during the period of organic and systemic rest. \* \* \*

"The normal temperature of man's body shows a diurnal undulatory movement coinciding with the diurnal variation of cosmic heat. Whatever be the details of the process by which this diurnal curve of our temperature is brought about, it cannot be questioned that it bears some relationship to those meteorological undulations.

"Those variations of atmospheric heat whose regularity is unchangeable, associated as they are with corresponding periods of systemic activity and rest, have so affected our thermotaxic function as to prevent it from ever attaining to the ideal of an absolutely uniform level of bodily temperature. \* \* \* The more closely and intimately is man's thermotaxic function brought into contact with these powerful pulsations of nature around him, the more strongly is their impress stamped upon it.

"On the contrary, the more effectively man's ingenuity enables him to shield himself against their influence, the less marked is the diurnal range of his normal temperature curve.

"The force of these diurnal meteorological phenomena increases as the equator is approached; and they attain their maximum of regularity and intensity in the torrid zone.

"For there the duration of the day is ever equal to that of the night, and the corrective influence of the seasonal lengthenings and shortenings of these two periods found in regions more distant from the equator, is practically absent.

"And there more than anywhere else on earth, man's thermotaxic mechanism is incessantly brought under the spell of those diurnal atmospheric variations, \* \* \*

"In the daytime the nervous center has to deal with the period of maximum systemic activity and heat production. The muscles are toned and worked; the cardiac contractions are accelerated; metabolism is rapid in the liver and other internal organs; the brain is active. All this results in the production of a great amount of heat, especially when hard

muscular labor is undergone, which cannot be allowed to accumulate, but must be thrown off.

"It is precisely during this period that the air becomes heated to a temperature not much below that of the blood itself, and saturated with watery vapor by the action of the vertical sun on the marshy surface.

"How is the heat-regulating center to deal with such a situation? As we have seen, the difficulties presented to the thermotaxic function by a hot atmosphere is immensely increased by its saturation with steam.

"In an atmosphere at 90° F. or higher which is dry, the throwing off of excessive blood heat is facilitated by the evaporation of the sweat, although the loss by radiation is reduced to a minimum. But when that hot atmosphere is almost saturated with watery vapor, even sweating ceases to afford much help to the heat-regulating mechanism; the sweat cannot be sufficiently evaporated.

"In such conditions the temperature of the blood can be kept normal only by a minimum of internal heat production, and hard muscular labor tends to produce a rise of temperature and thermotaxic disorder. Obviously the thermotaxic center will be put to a great effort by this ordeal of heat, especially in individuals and races having a high co-efficient of heat production.

"When these thermal conditions, internal and atmospheric, are extreme, the strain on the center may be so severe as to produce on it a pathogenic impression. And this will not immediately be effaced; for, as has been pointed out, this nerve center possesses a sort of memory, and retains not only impressions which produce a tonic effect, but also such as are pathogenic in force.

"I do not say that this nerve center may not undergo these trials once, twice, or a number of times without becoming deranged. But it seems undeniable that the repetition of these pathological impressions, of opposite kinds by day and night, are calculated to produce cumulative effects on the thermotaxic center the tendency of which is to goad it into a state of exaggerated excitability, into a condition analogous

to that of the motor nerve centers under the action of strychnia.

"In that state a comparatively slight excitation is capable of throwing it into a disturbance of more or less violent and explosive character."

These observations, founded upon a careful analysis of the facts, indicate how large may be the field for the action of impressions, pathogenic and benign, resulting from one extrinsic force only. What "acquired characters" and congenital prepossessions may not result from the combined influences of all the various external phenomena which act upon the individual in his course through life: helps to the advantageous development in the establishment and adequate equipment for vital persistence and transmission, or hindrances to the normal action upon important centers, of stimulating or inhibitive forces as yet subtle and undetermined?

Before going any further, let me quote a few brief extracts from scientific evolutionists regarding the more obscure causes of racial modification; the unmeasured impulse, and the helps and hindrances of which we have spoken in our reference to the toss of a ball. Huxley says:

"It is a truth of very wide, if not universal application, that every living creature commences its existence under a form different from, and simpler than, that which it **eventually** attains."

F. W. Hutton:

"The chief difficulty in investigating the problem of the transmission of acquired characters, is the difficulty of determining what *are* acquired characters.

"The evolution of the species of *Deilephila* shows that the evolution of the marking follows throughout a certain law; that it proceeds in all species in the same manner, all the species seem to steer towards the same point; and this gives the impression that there is an external law of evolution, which, like an impelling force, determines the future phyletic modification of the species."

Quatrefages:

"I believe with the majority of those that respect modern science, that organized beings owe their distinctive characteristics to a special Force, to a special Cause, to Life, which in them is associated with the organic forces."

In view of all the facts and the conclusions of able students of the subject, it seems reasonable to assume that the Special Cause, Force, or Life, mentioned is no more than an ancestral force of the germ-cell; an inherent Tendency to impulsion in a particular direction, modified by all the various influences which we have been considering, and possibly by others which we have not taken into account. This Tendency is direct, potent, and determinative, subject to compensatory displacement, yet persisting in spite of all obstacles in its path, bearing towards beneficent development always, and at the end of the series reaching a perfected type.

Speaking only of the physical development of the individual, what we have termed the subtle, undetermined forces, act continually in vitalizing the Tendency which, in itself persists towards an outward, definite form.

This perpetual progression, the life of evolutionary processes, is modified while inducing changes in the organism it dominates.

In the individual there is a form termed characteristic because racially indicative of long-continued biologic bias, with outlines general enough to include a whole race, but influenced by controllable as well as uncontrollable factors, and, in the end, made subservient to particular necessities.

Although the individual receives much from his ancestry besides the biologic bias, the complete ancestral correlation is not enough, fortunately, in the race to neutralize later influences into whose power the individual has been driven by the vicissitudes of life. While a degree of physical and mental personality comes by accretion, and individuality reaches its full development something after the manner of the crystal, after all, there is still the directing and determining Force which never ceases to act, though often under the stress of destructive modification.

For the seed of this tree continues to produce fruit after



its kind, perpetuating characteristics of the genus while maintaining the individuality of the species.

Nor can we force this tree which exactly resembles a progenitor, immediately to give us fruit characteristic of an alien race, or of a species unclassified; not indeed until there has elapsed a period of time sufficiently long to establish the impression of a definite variation—until the evolution has completed its cycle. Even the inherent Tendency will persist in the eliminating process of growth, and a silent war go on, as pathetic in many ways, as the wars of more perfected forms of nature.

We must stand in awe of this conflict which is taking place in all nature, destroying the connecting links between what we have been and what we are. The original pervading and pervasive Force continues to sway the expansive movement, at the same time yielding to the action of apparently accidental influences.

We may compare the one to the irrepressible, impulsive assertion of enthusiasm in the young; the other to the experienced, immovable and apparently unsympathetic yet really helpful attitude of the old. Whatever happens, the exuberant manifestation will continue to be modified.

While we may never be wise enough to determine what is the exact nature of the Force which urges the cell on to a definite, ultimate form, and cannot name the agencies which are jealous of their own through the most complex processes of evolution, we know that the destiny of this or that individual is outlined in his atomic organization, and guarded by a latent but unerring vitality; that both of these guardians of individual autonomy will be influenced by unforeseen, extrinsic forces and continue to be so modified.

As the change is gradual and continuous, the more differential series there are, the greater will be the modification in each. It becomes a matter of compound interest.

The form of this child born to day is the result of certain, special forces set in motion in a certain, special way—a long-drawn synthesis. In other words, a composite.

It is the product of an accumulation of psychic and physical events which cannot again be assembled for the same specific result. Never again shall another individual be established in life under identical conditions, for the forces and entities concerned are intangible. The psychic impression has passed, and so has the period of time in the history of men and things.

Hence our different faces and characters. There is no duplicate mould for us; our own nearest of kin must assume his unchallenged individuality. A patent of physical prerogative is given to each new-born child. A cast of our physical aggregate may be taken, but never of all that goes to make us what we are.

Who can tell even of himself what forces helped to differentiate him from all his fellows?

What particular mental states impressed most the subjective cell?

More than this, the individual is surrounded by what will never surround another individual in quite the same way—quantity, quality, time, place, potentiality.

It is to be inferred that these conditions will sometimes resemble each other in some respects, and such being the case, that the resulting products will in some respects be alike.

This may be seen in children of the same parents, the is created at a different period of time, at a different epoch product of an identical ancestry, but that is all. Each child of parental life, by a different psychic and physical impression.

While these differences do not apply to twins, there is the inevitable difference in the primitive cell elements, the difference in the subsequent nutrition when pre-natal advantages are given to the fittest, and possibly a dissimilar sex development.

Upon these differences may be based more appreciable ones which persist throughout childhood, and even to the end of life.

But we always secure what we call a Family Resem-

blance. This, like murder, will out. It betrays itself somehow.

It may be a form of face or body, an eye glance, a motion, a gait, an oddity of speech, a dimple, a mole, a wart, an intonation, a nod of the head, a laugh, a handwriting, a vicious curve, a mode of dying. We may have a "close" resemblance between strangers, because the forces concerned were in one or more respects similar, producing a so-called "double." When two persons bear a strong resemblance to each other, we may reasonably infer that they are somewhat alike in character. Expert penmen take this into consideration, and so should teachers who have qualified themselves by a study of psychology. In explaining such resemblance we may profitably enquire not only into the early environment of the persons concerned, but who their far-back ancestors were; what were the ascertainable influences which helped to make them what they are.

In this connection recorded genealogies would be useful, as a sort of index to guide us in our study.

The child of a rich and cultured family may be found to be the product of centuries of family ignorance and stupidity, while the street arab may prove to have descended from generations of culture and intelligence; the accidental offspring of a drunken, poverty-stricken father and mother.

All that goes to make a race bears upon the physical as well as the mental part of the individual, and *vice versa*.

How else can we explain the racial character?

A day existed when the typical Jew was not a type of his race, when he gave no evidence of his limited inheritance. He showed traces of two or three other races, but no well-defined racial characteristic. While we find today in each new-born child of pure Jewish ancestry, a characteristic individual of a specified race, we have nothing more than the union of certain primitive elements acted upon by certain specific forces; and the conditions involved remain peculiar.

The vital, racial Tendency may persist in the descendants of the Jew, but a change in the product will ultimately result,

owing to the entrance of certain subtle and undetermined forces which cannot remain identical through indefinite periods of time.

The mere fact that this child is born in an age of telegraphs, railroads, telephones, steamboats, automobiles and aeroplanes, provides modifying forces which will have their influence in determining a changed cell and an altered individual. It is utterly impossible to "duplicate" a man.

The result will be an a-typical Jew according to the old standards; a modern Jew instead of the Jew of yesterday.

In the typical composite face you may trace the history of a people, although the form belongs to an individual alone.

The facial value becomes established through the patency and persistence of recorded factors, and receives a name from its time and generation, but it is not permanent, and when some centuries hence, our descendants look upon a Jew, they will know him for what he is, and not for qualities they find attributed to him in ancient books. This has been the history of races. We cannot change the particular or general individuality by any hasty process of causation or elimination. It has grown slowly and must be modified in the same gradual way.

It is a law of physics that the larger the body and the longer it remains in motion, the greater will be its momentum, and the slower the stopping will be.

If we transplant Irish stock to French soil, for instance, it will still produce Irish fruit, until, once more, the force of new influences has modified the type. The Irish will become French in name and to the eye, but the individual will insist upon retaining something racial which, in time, will be regarded as a French characteristic. Red hair in the Norman French is a sort of ethnic defiance. The French people have made the best of it by calling it French. We cannot have a race with peculiar and definable characteristics until its generations have been placed under the influence of forces which produce such characteristics. With all the individuality expressed by the face and form of the new-born child of a par-

ticular race, we have still only the establishment of an outline; development will bring into play passive muscles as yet unaffected by an unasserted will. The essentially French bias (cell) will develop its body and mark its material emphasis in a distinctly French way, securing certain characteristics by use and eliminating others by disuse. The pretty baby is only a temporary expediency, and awaits more definite and characteristic sculpturing, while the intrinsic forces which are vitalizing and propelling, the environment which is persistent and inductive, are still factors.

What pushes the leaf out of the seed, continues to make its presence felt, and while we have in the young plant a different thing from the perfected tree, there are marks of identity which the busy forces are urging to a typical expression of individuality.

When, at last, the order has been established, and the child is born, a different set of conditions begins to modify a more yielding Tendency. And these new conditions are ruder and less considerate of ancestral preferences.

An unused mechanism is started by the influence of the air, by the stimulation of food which is no longer supplied unconsciously; by the action of light, until adaptation ensues. Then in the space which time allows for growth, we see marvellous changes. We may see the movement of expansion almost as we see the night-blooming cereus open. Grandmothers will tell you that pretty babies make ugly grown-ups, and *vice versa*.

The change is recognized but not accounted for, and like other acts of nature, little understood. We do not take into account the forces within and without, aiding each other in the work of growth; we are ignorant of the artist's design, and cannot tell where the lines of shading shall be placed, but they are the finishing touches, and without them the design cannot be comprehended as a work of art.

Slowly but painstakingly nature has carried on the work laid out, and given at last the face which belongs to no other person in the world but one.



Besides subtle forces it is most true that appreciable, extrinsic influences, intellectual, moral, social and religious, are most potent, and all have their part to do in moulding character, and so altering physical expression; in establishing ethnological if not anthropological features.

Norman Bridge has said that "learning is the establishment of cerebral automatisms. A given process of mind is repeated over and over and over again, becoming automatic. The life of the student is devoted to establishing this condition."

So with the attainment of a physical shape. Nature, through hidden forces acting upon the cell, establishes biologic automatisms subject to extrinsic inhibitions.

While a large amount of this work is done for us, we are required to contribute incessantly towards the development of our own individualities, in the direction of physical, moral and intellectual betterment—in all ways leading upward and onward.

We are permitted, yes, required to assist a very present and abiding outgrowth and upgrowth; in the elimination of our grosser nature, in the curtailment of inherent propensities, in the final adjustment of our bodies with all that contributes to their maintenance and perfecting.

Herein lies one of the advantages of recognizing the existence, if not the character of undetermined forces, and in placing ourselves in the way of helping instead of hindering a beneficent evolution.

As Huxley says: "It seems impossible that any variation which may arise in a species of nature should not tend in some way or other, either to be a little better or a little worse than the previous stock; if it is a little better it will have an advantage over and tend to extirpate the latter in this crush and struggle."

The person who assures us that he can tell by a man's appearance what vocation or avocation that man follows, may be over positive, but it is certain that he has some basis for his confidence.

An individual's constant thought passes into facial ex-



pression as definitely as a painter's colors are placed upon the canvas.

How are the emotions of the mind traced upon the mobile face, certain significant shadings, mysterious lines drawn here and there, giving to each person his characteristic expression!

How inadequately the words, "She is sorrowful," convey the picture of a grief-bound face. Love, hate; content, agitation; joy, sorrow; sympathy, coldness; pity, indifference—all expressed by the action of certain facial muscles which, like faithful servants, do as they are bidden by a Master will.

The subtle evidence of mentality is so suggestive in the face of every man, that intuitively we have come to judge of a person's character by his face.

The outward mark of a gentle, refined mind is unmistakable, and as plainly do we recognize the effects of a brutalized life.

As a rule, large, heavy-faced, coarse forms belong to a like natures. There are exceptions, of course. The ignorant, heavy-browed Australian with his inartistic features, his high-cheek bones and sinister expression, is a very low order of man. His mind deals with the simplest of concrete things.

For some reason, his evolution has been checked, or possibly the forces at work in other races—the inherent, intrinsic tendency which compels the developing individual gradually to part company with the grosser elements of his nature, and mould him into something better than he was—are in the "undeveloped" latent or perhaps dead, although I believe that the tendencies towards a better type never cease to be available for the uses of evolution.

This stranded relic of a primitive age appears to be affected only by extrinsic forces. There is a psychic inco-ordination, and while impressions upon the periphery continue to be made, the internal response is small, and the man lives in the fulfilment of insignificant automatisms.

He may well be called biologic flotsam—an ethnic anomaly.

In this light, it is interesting and instructive to study the different races of mankind, and to enquire into their varying susceptibilities to educational and physical improvement, their response to all the ethical and social influences which so affect special sections of the human family.

More than this, in those whom educational forces have not reached, we may be astonished to discover the almost magic touch of contact with more advanced peoples, and the quick response which even backward races make to unaccustomed stimuli.

Here are pencil touches indeed, though our advantage over the set picture which remains unresponsive to the artist's design, is truly great. We have merely to set factors at work.

In the beginnings of development there is an excess of manifestation; repair exceeds waste, and we have rapid growth; here is our opportunity to be helpful in the training of children or the direction of the immature or undeveloped man.

Then follows the adult product, waste and repair being equalized. By and by waste is ascendant, and the familiar face ages.

Death, which comes when the extent of the loss is inconsistent with the discharge of normal functions, is at this period not a calamity but a sequence; a perfecting and completion of progressive modifications.

It has been said that there is often a growing resemblance between those who are closely associated in intimate relationships, as between husband and wife. If there be such a resemblance and it is not due to causes already discussed, I should attribute it to the fact that these two persons are subjected to like influences at the same time, in the same place, and under similar circumstances, which influences acting upon masses of men help to induce the racial face and form. But in such cases there is, of course, only the action of extrinsic forces; two individuals cannot share or mutually exchange an identical biologic prepossession.

Place two pieces of clay under the same pressure, and

you shall have lumps somewhat the same in froce, modified only by the size and consistency of each piece.

If all the forces, social, religious, climatic and so on, have contributed towards the production of the typical Irishman, why should not closer-drawn influences, though extrinsic and exerted over a comparatively short period of time, give the two affected by them a family face, modified, of course, by sex and vital forces which do not grow less in the individual? Husband and wife, more than others, are affected by the same vexations and fears, depressed by the same anxieties, and gladdened by the same blessings. If the psychic influence is to be considered, it may well be here.

While evolutionists have readily acknowledged the existence of undetermined factors concerned in anthropological modifications, physicians have been slow to grant that such forces are at all involved in the production of disease, even when the causation and mode of transmission of such diseases baffle investigation; even when the ordinary therapeutic measures do not put a stop to the morbid process.

(To be Continued.)

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THE SIGNS OF THE HAND IN DISEASES OF THE  
NERVOUS SYSTEM.

By M. HOUNZÉ.

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(Translated by C. G. Chaddock, M. D., of St. Louis, at the

Editor's request, from the *Gazette Medicale de Paris*,

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THE nervous system is the directing system of the whole human machine, the regulator in chief of its organic life. By means of its ramifications it reaches all parts of the body; thus it is easily seen that all organs may suffer as a result of its lesions. So of all the diseases to which humanity is subject, nervous maladies are, without contradiction, those which give rise to the most numerous and divers disorders—disturbances of motility, sensibility, reflectivity; trophic, vaso-motor, secretory, electrical abnormalities.

Nervous affections are often at once manifest in modifications of external appearance. Thus, scoliosis is met in

syringomyelia, in Friedreich's disease; the thorax is deformed in acromegaly (boat-shaped); in primitive progressive myopathy (dystrophy) the wasp-waist has been described by P. Marie; paddle hands form a part of the picture of the disease of Marie; in the myopathies, the face is inert and without expression; in Friedreich's disease the foot is arched and there is extension of the toes, especially the great toe.

Sometimes the nervous affection attracts attention by symptoms predominant in one or another organ—now in the face (convulsive tic); now in the eyes (nystagmus, exophthalmos); now in the lower extremities (ataxia, cerebellar gait); now in the upper extremities (tremors, contractions).

Thus certain nervous affections cause in the hands anatomical changes and functional troubles which induce special characteristic attitudes almost sufficient in themselves to make diagnosis of the disease.

The particular symptoms and special attitudes which the hand may present in divers nervous diseases, have seemed to me to be worthy of description in a single chapter entitled: *Signs of the Hand*. Owing to its remarkable development, the extreme mobility with which it is endowed, and owing to the exquisite sensibility of its skin, in man the hand is a marvelous instrument, principally as an organ of prehension and tactile sensibility. In no animal does the superior member present an equal degree of morphological perfection. This makes sufficiently clear why the functional and anatomical troubles in the hand become at once striking and are specially described in studies of nervous affections.

The external form, the anatomy and the physiology of the hand I deem well enough known to allow me to omit them here. I shall limit myself to a description of the different symptoms which the hand may present in the few nervous maladies we have to consider.

PROGRESSIVE SPINAL MUSCULAR ATROPHY.—The affection begins almost always in the upper extremities. Usually the atrophy begins in the right hand. It first attacks the small muscles of the thenar and hypothenar eminence and is ac-

accompanied by related functional disturbances. No matter what the other symptoms, disturbances of sensibility, paresthesias, pains, are usually absent. The atrophy commonly first shows itself in the short abductor of the thumb, then in the opponens, the short flexor, and the adductor. From the first, the thenar eminence becomes hollowed and flattened in a characteristic way, and the thumb remains abnormally close to the second metacarpal. The long extensor of the thumb, predominating, draws the first metacarpal backward and outward. The hand assumes the appearance of the simian hand (ape hand).

Opposition of the thumb with the other fingers (short flexor for second and third; short abductor and opponens for third and fourth) becomes more and more difficult and finally impossible.

At the same time atrophy begins in the interossei, seen in the deepening of the interosseus spaces and the abnormal prominence of the metacarpals, which seem on the back of the hand deprived of flesh; the terminal phalanges are less and less readily extended. Atrophy of the lumbricales produces a hollowing of the palm, and abduction and adduction of the fingers becomes impossible.

If the play of the interossei and lumbricales is abolished, since they are the flexors of the first and extensors of the second and third phalanges, the common extensors and flexors of the fingers are deprived of antagonists. Then the first phalanges become extended to the metacarpal plane, even making in hypertextension an obtuse angle posteriorly; the second phalanges flex on the first and the first on the second, thus constituting the claw-hand (*main en griffe*).

At a later period the hand becomes so lean that it resembles the skeleton hand; and then, all muscles being completely paralyzed and atrophied, the fingers are inert and flaccid.

2. AMYOTROPHIC LATERAL SCLEROSIS.—During the first period of the disease, that is to say, some months after the beginning of the symptoms, the upper extremities present a combined picture of spreading atrophy and permanent con-



tracture. The affection commences oftenest in the small muscles of the hand. The patient experiences twitchings and feelings of fullness in the hand, which becomes stiff, weak, and finally awkward. At the same time the patient notices that the hand grows lean; the thenar eminence disappears, and from the beginning are established the true principal phenomena of the disease—muscular atrophy and spastic paralysis.

The muscular atrophy takes place progressively, but rather rapidly and quickly attracts the patient's attention. It begins in the small muscles of the hands and fingers. The short abductor of the thumb first disappears, leaving a trough; the first metacarpal becomes very prominent. Progressively the atrophy invades the muscles of the thenar eminence, those of the hypothenar eminence, and the interossei, while the flexors of the hand and fingers long remain untouched.

The first metacarpal falls back to the plane of the other metacarpals. The prominences and planes of the hand become level and then disappear; the first phalanges extend on the metacarpal while the second and third flex toward the palm (claw hand). These symptoms of contraction are increased, of course, as the muscular atrophy makes progress. The muscles undergoing atrophy are the seat of very pronounced fibrillary contractions.

When the atrophy progresses very rapidly and simultaneously invades the flexors and extensors, the hand presents the appearance of the skeletal hand.

3. SYRINGOMYELIA.—In this affection the muscular atrophy from the beginning is localized exclusively in the upper extremities, and especially in the small muscles of the hand.

It begins in the first interosseus and the invades successively the thenar and hypothenar muscles, the interossei and lumbricales. However, this order is not absolutely constant; the interossei may sometimes be involved before the thenar and hypothenar eminences, and the latter before the thenar.

The resulting deformities are like those observed in progressive spinal muscular atrophy.

Still, the paralysis is ordinarily less pronounced in the

muscles innervated by the radial nerve; and thus it happens that while the last two phalanges remain flexed in the palm, the others are in extension on the metacarpals with the hand in forced extension, an attitude spoken of as the preaching hand (*main de prédicateur*).

When the atrophy attacks both upper extremities, often, but not always, corresponding muscles disappear; thus the two hands may present similar or dissimilar attitudes.

Besides the attitude described, we observe in syringomyelia dissociation of touch, pain, and heat as modes of sensibility, i. e., persistence of sense of touch with anesthesia to painful and caloric stimuli, as well as trophic disturbances (felon, vesicles, bullæ, gangrene of the skin, ulcers, arthropathies, exostoses, etc.).

4. HYPERTROPHIC CERVICAL PACHYMEINGITIS.—After a painful initial period which may continue several months without the appearance of other phenomena than severe pains starting from the nape of the neck and radiating towards the occiput and the upper extremities, the paralytic symptoms of the second period supervene. This period is marked first by weakness of the muscles of the hands and their progressive atrophy.

This atrophic paralysis attacks especially the territories of the ulnar and median nerves, sparing the domain of the radial, consequently the movements flexion and adduction of the hand and forearm are especially implicated. Owing to the contraction of antagonists (extensors) the hand assumes a special attitude, known as the preaching hand (*main de prédicateur*). It is overextended on the forearm and the fingers are flexed. The palm is flattened as a result of atrophy of the muscles of the thenar and hypothenar eminences. In these, as well as in those of the forearm, the reaction of degeneration is observed.

I recall here in a few words that the reaction of degeneration consists of three elements: (1) Loss of faradic excitability in nerves and muscles; (2) loss of galvanic excitability in nerves with its preservation in muscles, inversion of the formula of the reactions ( $NCC = \text{or} < PCC$ ); diffusion of

the motor points with reaction from a distance; (3) slowness of the contractions and their more rapid fusion into tetanic contraction.

5. **PARALYSIS OF THE ULNAR NERVE.**—The ulnar nerve innervates the anterior ulnar muscle, the internal of the deep flexors of the fingers, the interossei and a part of the lumbricales, the adductor of the thumb, and all the muscles of the hypothenar region.

When these muscles are paralyzed, ulnar flexion and adduction of the hand are limited as a result of paralysis of the anterior ulnar muscle; flexion of the last three fingers is incomplete (in part owing to paresis of the deep flexor); the third phalange can no longer be flexed; movement of the little finger is completely abolished owing to paralysis of the muscular mass of the hypothenar eminence.

But the most striking peculiarity, due to paralysis of the interossei and the last two lumbricales, is that flexion of the first phalanges and extension of the terminal phalanges are no longer possible. The movements of separation and its opposite of the fingers (interossei and lumbricales) are much hindered. It is impossible to bring the thumb inward and to place the first metacarpal in opposition with the index finger, owing to paralysis of the adductor of the thumb.

In all the varieties of paralysis of the ulnar nerve, besides the muscular atrophy which causes especially marked hollowing of the interosseal spaces of the dorsum of the hand, there is produced an attitude of the hand that is very characteristic, as a result of contracture of the antagonists of the paralyzed interossei (common extensor and flexor), when an attempt is made to place the hand flat on its palm—) the first phalanges go into forced extension, while the second and third flex (claw-hand). This position is even maintained in the state of muscular repose. Sensory disturbances, if present, are confined to the palmar surface of the last two fingers, to the dorsal surface of the last three and to a part of the dorsum of the hand. Trophic lesions of the skin of the fingers are sometimes seen.

6. PARALYSIS OF THE MEDIAN NERVE.—The median nerve controls all the muscles of the anterior region of the forearm except the anterior ulnar and the two internal fasciculi of the deep flexor of the fingers, all the muscles of the thumb (except the adductor), and the first two lumbricales.

Paralysis of these muscles suppresses almost entirely pronation of the forearm (pronator quadratus). Flexion of the terminal phalanges is no longer possible (superficial and a part of deep flexor), while flexion of the first phalanges is still possible by the interossei.

The patient can no longer seize objects save with the last three fingers, flexion of which is still possible in part by action of the deep flexor (ulnar nerve). The terminal phalanx of the thumb cannot be flexed (long flexor of thumb), and its first phalanx can only be flexed by the simultaneous adduction of the adductor and internal portion of the short flexor (ulnar nerve); movements of opposition of the thumb with the other fingers, which for the second and third are made by the action of the short flexor, and for the fourth and fifth by that of the short adductor, are completely abolished. The first metacarpal is drawn backward by the long extensor of the thumb. The ensemble of these deformities constitutes the ape-hand (*main de singe*).

Disturbances of sensibility are not uniform; they may be wanting entirely, or they may involve the area of terminal distribution of the median (external [radial] half of the palm, the palmar surface of the three first fingers and the radial half of the ring finger, dorsal surface of the second and third phalanges of the index and middle finger, and the radial half of the ring finger). In severe cases quite often trophic disorders are observed (bullæ, atrophic skin, alterations of the nails).

7. RADIAL PARALYSIS.—The radial (musculo-spiral) nerve innervates the extensor muscles of the forearm, or of the posterior region of the forearm (common extensor of the fingers, extensor of the little finger, proper posterior ulnar, anconeus, long abductor of the thumb, long extensor of the

thumb, short extensor of the thumb, extensor of the index proper), the triceps (brachial), and the muscles forming the fullness of the antero-external aspect of the forearm (long supinator, first and second external radials, short supinator). Therefore the radial nerve presides over the movements of extension of the hand and fingers and of supination.

In paralysis of this nerve, if the patient raise the arm, the hand, in pronation, hangs in limp flexion on the forearm, and he cannot raise it up (posterior ulnar and two radials). The dorsal surface of the hand is slightly convex, while the palmar surface is excavated as a result of the predominance of the thenar and hypothenar eminences, the action of which is no longer balanced by that of the paralyzed extensors.

The patient is unable to execute any lateral movement of the hand, because the radial muscles (abductors) and the posterior ulnar (adductor) are paralyzed. The fingers are flexed, the first phalanges can no longer be extended on the metacarpus (common extensor of the fingers, proper extensors of little and index fingers). But if one extend and sustain passively the first phalanges, active extension of the terminal phalanges is possible, as in the normal state (action of the interossei innervated by the ulnar nerve). The thumb is flexed and adducted; at the same time no active movement of abduction (long abductor) or of extension (long and short extensors of the thumb) is possible. The action of the flexors themselves is weakened because their points of insertion are brought nearer together than is normal, because of the permanent flaccidity of the hand.

Besides the motor disturbance, sometimes, in the zone of distribution of the radial nerve, there is an alteration of sensibility which rarely attains a notable degree.

8. **LEAD PARALYSIS.**—It is usually bilateral, and in the great majority of cases is localized in a very typical manner in a part of the radial nerve, which it attacks with marked preference. It invades most rapidly the common extensors of the fingers. Extension of the first phalanges of the third and fourth fingers and later of the second and fifth fingers



is impossible. On the contrary, extension of the terminal phalanges takes place as in the normal state (*interossei*). Later the paralysis extends to the long and short extensors of the thumb, to the long abductor of the thumb, to the extensors of the carpus, in grave cases to the *interossei*, and the muscles of the thenar eminence, while the long and short supinators are never paralyzed, in contrast with what is observed in radial paralysis.

Very often there is observed a chronic thickening and swelling of a special nature affecting particularly the tendons of the back of the hand.

Almost invariably, sensibility remains normal or is but little altered. In serious cases, pronounced atrophy develops in the paralyzed muscles, and they then present the reaction of degeneration.

9. **TETANY.**—This affection is characterized by painful cramps occurring intermittently and by preference in the distal portions of the members, with integrity of the general health and the cerebral functions. A person in perfect health is suddenly seized with vague malaise and feels painful formication in the extremities, with some trouble in moving them.

The attack is usually preceded by prodromes consisting especially of subjective disturbances of sensibility, sense of fullness, formication, painful pricking in the tips of the fingers. The contracture shows itself first in the upper extremities, where it ordinarily predominates. In one variety the resulting attitude is typical and permits a diagnosis at sight; the thumb is in adduction and flexed toward the palm of the hand; the fingers are straightened and in adduction with relation to the axis of the hand, and they are brought into the form of a cone, with the borders of the hand approximated, and the palm excavated. This is the attitude which Trousseau compared to the obstetrician's hand ready to enter the vagina.

In another variety, the hand is quite closed and clenched into a fist, the fingers flexed, with the thumb within or without the fingers. This flexion is sometimes so forced that the nails may pierce the flesh, and it becomes necessary to protect the palm with a cotton pad to prevent this accident.



10. ACROMEGALY.—Marie's disease usually begins in the hands and fingers, which present a remarkable hypertrophy. This is a massive hypertrophy, which affects equally all the tissues, but the general form is preserved. The hand retains its normal length, while its breadth and thickness are greatly increased, whence the names *paddle hand*, *upholsterer's hand*.

The fingers are larger, without being longer; sausage-fingers, filled out between, but not at the joints. The skin is darker than normal, firm, hard, but not edematous. The creases of the skin are more marked than usual and render more pronounced the rounding out of the palmar eminences of the fingers and the thenar and hypothenar eminences.

11. OSTEO-ARTHROPATHY.—Here the whole hand is augmented in size; it is enormous; but the hypertrophy affects especially the fingers, which are elongated, flattened and thick. The nails are broadened and curved laterally and lengthwise, ending like a parrot's beak, presenting numerous cracks. The terminal phalanges enlarge and take the form of a club, drum-stick or a bell-clapper—an exaggeration of what is called the tuberculous hand.

The metacarpus is but slightly altered, presenting neither the prominences nor the fleshy cushions of acromegaly.

12. HEMIPLEGIA.—Sometimes in this condition we meet rare disturbances of a trophic nature, consisting of vasomotor disorders in the paralyzed members, especially in the upper extremity. It may happen that the hemiplegic's hand shows an increase of volume, with quite marked thickening which wipes out the usual markings of bones and tendons on the back of the hand and in the fingers. The fingers are more regularly cylindrical and often show unusual tapering at the ends. But this increase of volume is not due to ordinary edema, and pressure does not cause pitting. Gilbert and Godet have called this condition the *juicy hand*.

The skin of the hand and fingers is thinned and shiny, and presents a red or violet color.

13. PARALYSIS AGITANS.—Two symptoms characterize Parkinson's disease: tremor and muscular rigidity. Tremor

is usually the first symptoms the patients notice. Beginning in the hands, and especially in the right one, this tremor presents a special character which differentiates it from other forms of trembling. The hand assumes a peculiar attitude; it seems to be holding a pen as if to write. The last four fingers, extended and united, tremble as if made of one piece, while the thumb moves in contact with them synchronously. This attitude has given rise to numerous comparisons, all more or less exact. The patient seems to be crumbling bread, to be making pills, to roll a cigarette or a paper wad, to be counting money or to be spinning wool. The handwriting shows the effect of the tremor; usually the letters are formed of lines which are made up of a fine, irregular, sinuous zigzag, and if the tremor is very pronounced, of little broken lines, the appearance of which is quite characteristic. These movements occur when the muscles are in repose; they cease during sleep; they diminish or may even cease when the muscles are activated by a strong voluntary contraction, as when the patient shakes hands energetically.

The rigidity of the muscles may in time cause true deformities of the hands, analogous to those of chronic progressive rheumatism, always, however, with the exception of the tumefactions of the bony structures, and the deformity of the thumb, which, in paralysis agitans, presents a flattening from before backward, due to the constant pressure against the index finger.

14. **ATHETOSIS.**—Athetotic movements are sometimes very complicated and extremely remarkable, keeping the part of the body affected in constant agitation. The athetotic movements are best characterized in the hands and fingers. The movements are involuntary and slow, taking place notably around the metacarpophalangeal articulations, in such a way as to cause the fingers to pass from flexion to extension, from abduction to adduction, with a remarkably exaggerated slowness and excursion. Successively, the fingers spread like a fan's ribs, are approximated, bend, extend, curve on themselves, turn backwards, are placed one on another, are crossed, and assume the most curious attitudes.

The nature of the movements show that the interossei are the muscles most affected. As a result of the tension to which the articular ligaments of the phalanges are subjected, there is finally produced a state of such relaxation and flaccidity that the fingers move to degrees of hyperextension much beyond that which is normally possible and which a normal person cannot imitate. These movements of athetosis have been compared to the movements of the tentacles of the devil-fish (marine polypus).

Voluntary movements are not abolished, but they are disorderly and cog-wheel like. The patient succeeds in seizing objects by making a movement out of proportion with the movement normally necessary to attain the desired end, but they quickly allow it to fall from the grasp, since extension of the fingers follows flexion of them, no matter what effort is made to prevent it.

15. **ARTHRITIS DEFORMANS.**—Since some writers consider arthritis deformans to be a neurotrophic affection, the primary lesion of which has its seat in the spinal cord or its membranes, it seems to me justifiable to describe here the deformities of the upper extremities met in this disease. Charcot divides them into two types. The first, or flexor, type is the more frequent. It is characterized by: (1) Flexion at an obtuse, right, or an acute angle of the third upon the second phalanges; (2) extension of the second phalanges on the first phalanges; (3) flexion of the first phalanges on the head of the metacarpals; (4) flexion, at an obtuse angle, of the metacarpals and the carpals on the bones of the forearm. Besides, there is a deviation of the phalanges *en block* toward the ulnar side of the hand, with an inverse deviation of the third phalanges on the other phalanges.

The second type, or that of extension, consists of: (1) extension of the third phalanges on the second; (2) flexion of the second phalanges on the first; (3) extension of the first phalanges on the head of the metacarpals; (4) flexion of the carpus on the bones of the forearm. There is likewise deviation of all the phalanges toward the ulnar border of the hand.

Such are the principal symptoms of nervous diseases manifested in the hands. These diseases, as shown by the signs described, may be divided into three groups. In the first group belong those affections in which occur the simian hand or the claw-hand; progressive spinal muscular atrophy, type Duchenne-Aran; amyotrophic lateral sclerosis; syringomyelia; paralysis of the median nerve; hypertrophic cervical pachymeningitis.

To the second group belong those nervous diseases which present attitudes of the hand different from those of the first group: tetany, radial paralysis (musculo-spiral), lead palsy, acromegaly, osteo-arthropathy, hemiplegia, arthritis deformans.

Finally, the third group is made up of affections in which the hands and fingers exhibit movements of a special character.

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## PARETIC DEMENTIA AND BANK FAILURES.

A STUDY OF THE KIRBY CASE. ....

BY JAMES G. KIERNAN, M. D.,

Chicago.

**P**ARETIC dementia, as LeGrande du Saulle<sup>1</sup> points out, has a medico-legal period. This is the first or mental alteration stage of Mickle.<sup>2</sup> Of the ordinary moral defects I have already<sup>3</sup> given many cases. Of cases bearing on the present topic the following were the most striking then noted:

A Poughkeepsie bank cashier was suddenly noticed to be extravagant. This led to investigation, and a seeming defalcation was found (on examination of the cashier's house drafts, cheques, money orders were found in all sorts of places, placed there for some years). The psychosis of the cashier was then clearly evident. As a paretic dement he died in an insane asylum.

The teller of a Troy bank was insane from paretic dementia for some years before it was discovered. Meanwhile the cashier was able to wreck the bank nearly, because of the teller's mental disorder. These were national banks.

In a case reported by Le Grande du Saulle<sup>4</sup> a similar fate threatened a French bank because of the paretic dementia of a cashier. Most of these seeming embezzlements are due, as Spitzka<sup>5</sup> has pointed out, to forgetfulness rather than misappropriation. In some cases delusions of memory occur and play the same role. A patient of mine who had marked degeneracy stigmata was attacked by a paretic dementia.

His periods of exaltation and depression alternated twice or thrice and disappeared, leaving a paralucid, querulent, pes-

simistic state. He had an inward conviction, from what were evidently memory delusions based on his former depression, that everything was going to go wrong with his business. Under the influence of this state he sold out some stock, which, by a "bear" movement induced by a lawsuit, had been forced down in value. This lawsuit and the resultant "bear" movement had been foreseen by him when he purchased the stock. The stock rose above par within a week after he sold it. The remission gave place to a period of depression followed by one of emotional exaltation, during which he was committed to an insane hospital. Suit was brought by his conservator to amend the sale of the stock. The jury under the instructions of the court decided that the sale should stand. This decision was in full accord with repeated decisions of the Illinois and Iowa Supreme Courts, which hold persons of unsound mind by an executed contract or conveyance where the transaction is fair and reasonable, and in the ordinary course of business, and where the mental condition of the party is unknown to the second part, and the parties cannot be placed in *status quo ante*.

In another case with hereditary taint complicated with lues there occurred periods of paralucid querulence, emotional depression, and exaltation. The patient previous to the demonstrable onset of the parietic dementia had contracted to have two houses built. The contractor after making several subcontracts failed. The subcontractors demanded payment of the patient for work for which the contractor had been previously paid. This was refused. The patient was sent to an insane hospital, whence he was discharged in a paralucid querulent interval. Despite my advice to the contrary, he was placed in charge of his property. In a short time he verbally agreed to pay the subcontractors their bills. Owing to a new period of exaltation requiring hospital treatment, these promises were not fulfilled, whereupon suit was brought. The jury decided for the plaintiffs for the same reason as in the previous case.

The civil and criminal responsibility of the insane differs



according to the common law, and very justly so. The estate of the insane patient is justly liable for his torts while he is not criminally responsible for these.<sup>6</sup>

The assumption of the trial judge in the case under discussion that an insanity dodge would exempt from civil responsibility was a piece of judicial legislation without warrant in either Federal or State supreme court decisions.

Federal courts, as President Roosevelt pointed out in 1904, have a tendency to ignore the common law, although the constitution says no case tried before a jury shall be otherwise reviewed than according to the common law. It was judicial legislation of this kind that led to Lincoln's denunciation of the Federal courts for their extreme subserviency to local interests, a denunciation embodied in the Republican platform of 1860. As Macaulay points out, there is a too common tendency on the part of judges to legislate in place of interpreting.

In the case under discussion the judge had at one time been attorney for railroad of which the banker-physician had been surgeon. On this personal association he based his opinion as to the insanity dodge. The physician had given up practice and become a banker, for the rather peculiar reason that he forgot appointments, forgot ingredients and their quantity in prescriptions and had periods of absent-mindedness. His bank ran along in a happy-go-lucky way for some time. He at the end succeeded in getting \$20,000 from another and rival bank by a check-kiting scheme. This he invested (with alleged wire tappers) in a horse race (the horse, bet on at 40 to 1, actually won). The alleged bookmakers were simply swindlers, who were later sent to the penitentiary for this transaction. The bank induced some of the depositors to throw the bank into bankruptcy. The doctor's mother-in-law offered to guarantee the depositors, provided the doctor was placed under a conservator and the costly receivership proceedings avoided.

After an examination, I advised calling business associates to witness to the banker's mental state. The county physician, Dr. Davis, and Dr. R. C. Hamill heard the evidence,

but the business associates were not called. They found the banker insane, and a conservator was appointed. When the plea was made in the Federal court in the bankruptcy proceedings Judge Landis declared it a fraud on the court. He declared the lawyers guilty of a conspiracy in contempt of court. Later he had them and other lawyers subsequently engaged, indicted for conspiracy on his evidence, by the Federal Grand Jury. For some reason, I was left out of the indictment, although mentioned as one of the conspirators. Court Judge Owens set aside insanity findings, without rehearing, at Judge Landis' instance. Judge Prendergast and Judge McConnell had previously held this could only be done on a rehearing of the case. The contempt of court conspiracy charge was tried by Judge Sanborn, who rendered the following verdict:

United States District Court. Northern District of Illinois. Eastern Division. The United States vs. Thomas B. Lantry, James B. Rosenthal, Francis J. Houlihan, Patrick H. O'Donnell, William T. Kirby and Margaret L. Kirby, Respondents.

**T**HIS is an order to show cause why respondents should not be punished for contempt of this court, committed in an involuntary bankruptcy proceeding pending therein against the respondent, Dr. William T. Kirby. The alleged acts were committed at various times during the month of November, 1912, and consisted in the alleged fraudulent use of an insanity adjudication against Dr. Kirby in the state court made prior to filing the bankruptcy petition against him, as a plea in abatement of the bankruptcy case. After the bankruptcy proceedings had gone on for some time, the matter of the alleged contempt was investigated by a grand jury, resulting in a report or presentment to the effect that the respondent Lantry, for the purpose of preventing this court from assuming jurisdiction over, and administering upon, the estate of William T. Kirby, in bankruptcy proceedings which might be thereafter commenced, caused the said William T. Kirby to be adjudged an insane person by the County Court

of Cook County, through a concealment from that court of material facts of which he had knowledge, with respect to the conduct and the mental condition of said Kirby, and which concealment of facts and misrepresentation of facts to the County Court were fraudulently made; and further, that with such fraudulently procured adjudication as a basis for the appointment of a conservator, in the probate court, the said Lantry caused such appointment to be made. The use of this fraudulently procured adjudication of the County Court, and the letters of conservatorship which had been issued to Roger S. Gorman, a brother-in-law of the said Kirby, as the result thereof, in an endeavor to prevent the District Court of the United States from administering upon the assets of the estate of William T. Kirby, bankrupt, through its duly appointed officers and agents, is the act complained of as an attempt to obstruct the administration of justice.

The contempt charge against Rosenthal, Houlihan and O'Donnell, who are attorneys at law and members of the bar of this court, as well as against Dr. Kirby and Mrs. Kirby, is that with knowledge of the fraudulent procuring of the insanity adjudication, they used such adjudication before this court sitting in bankruptcy in an attempt to oust its jurisdiction, and the same charge was made against Lantry. In other words, all the respondents were charged with bringing into the bankruptcy court a fraudulent, fictitious and collusive judgment, in an attempt to defeat its jurisdiction.

After the hearing on the order to show cause had proceeded for some days, and at the close of the testimony offered by the government, the court on its own motion discharged all the respondents except Lantry, on the ground that there was no evidence showing any knowledge of the respondents Rosenthal and Houlihan and O'Donnell of the circumstances under which the insanity adjudication was procured, or any knowledge that Dr. Kirby was not actually insane. It was not claimed by the district attorney or his assistants that there was any direct evidence on either of these points, but it was suggested that these respondents were put upon inquiry by

what occurred in the bankruptcy court. On this point Mr. Godman made the following argument:

"On November 8th all of these gentlemen, with the exception of Mr. Rosenthal, were before Judge Landis at the time when Mr. Kirby was brought in court. The court by announcement from the bench indicated that in his opinion at least, Dr. Kirby was shamming insanity. He characterized the whole proceeding, as I remember it, as a farce, and indicated that the adjudication in insanity had been procured fraudulently and for the purpose of defeating that court of jurisdiction.

"Now, I suggest to your honor, that while the announcements from the bench in that case are not of a conclusive character or binding on anyone, particularly as to what the true facts are, nevertheless, when such announcements were made and repeatedly made from that time on throughout the hearing, I suggest that it became the duty of counsel then to inquire as to whether or not the adjudication in insanity had been in fact procured in good faith, and for the purpose of determining whether or not any imposition was being attempted to be practiced on the court.

"It is inferable, certainly, from the facts that any attorney engaged in the matter, in view of what was said by the court there of the atmosphere surrounding the case and of the facts which from time to time appeared as the hearing progressed, it was the duty of the counsel to at least inspect the files; it was their duty to inquire and determine and find out upon what evidence this adjudication in insanity had been had. I am sure that probably your Honor has never had called to your attention in any record of any happenings in any court, any remarks by the presiding judge of a more pointed and direct character concerning his views as to what was transpiring before him, than in the case in which counsel in this case were engaged."

In view of the fact, found on a subsequent page, that there was at least probable cause for the adjudication of insanity, it is unnecessary to give further attention to this aspect of the case. It appears that Judge Lantry, while the bank-

ruptcy administration was proceeding, was engaged in an apparently earnest effort to determine whether Dr. Kirby was really insane. If the three attorneys had made all the inquiry suggested they must still have been in doubt, at least, whether Dr. Kirby's adjudication was not entirely proper, both for mental and physical disability.

Dr. Kirby and his wife were at the same time discharged, for the reason that the evidence did not in any way connect them with the technical use of the adjudication by their counsel as a plea in abatement to the jurisdiction, or as a plea in bar of the power of Dr. Kirby to commit the alleged act of bankruptcy.

The proceedings in the County Court resulting in the adjudication in insanity of Dr. Kirby, were brought under the provisions of section 1 of chapter 85, Hurd's Revised Statutes of Illinois, p. 1499, which reads as follows:

"That the word insane in this act shall be construed to mean any person who, by reason of unsoundness of mind, is incapable of managing and caring for his own estate, or is dangerous to himself or others, if permitted to go at large, or is in such condition of mind or body as to be a fit subject for care and treatment in a hospital or asylum for the insane:

*"Provided*, that no person, idiot from birth, or whose mental development was arrested by disease or physical injury occurring prior to the age of puberty, and no person who is afflicted with simple epilepsy shall be regarded as insane, unless the manifestations of abnormal excitability, violence or homicidal or suicidal impulses are such as to render his confinement in a hospital or asylum for the insane a proper precaution to prevent him from injuring himself or others."

As the district attorney argues, it seems clearly to appear that, despite the fact that the chapter of which the section above quoted is part, is entitled "Lunatics," the section is susceptible of a construction that an adjudication of insanity might be had in two distinct kinds of cases, namely: (1) where the subject was actually mentally unbalanced and deranged, and on that account unable to manage and care for his own



estate, or dangerous to himself or others if permitted to go at large, or (2) where the subject was in such condition of mind or body as to be fit for care and treatment in a hospital for the insane.

In other words, the county judge had jurisdiction to find Dr. Kirby insane for bodily infirmity alone. He was clearly in a most serious and pitiable condition of health, as admitted by all the witnesses on both sides. It was, therefore, of little technical consequence whether his mind was sound; by the terms of the Illinois statute he was "insane," and a proper subject for commitment. Nor was it important to inquire whether or not all the facts as to his mental condition were disclosed to County Judge Owens, since the latter was fully justified, if not morally compelled, to commit him for bodily infirmity alone, without exhaustive investigation of his mental condition.

In the bankruptcy court, however, this double aspect of the lunacy statute was overlooked. Dr. Kirby came into court and shammed insanity, that is, he pretended to be in a much more serious mental condition than he actually was, thus strongly tending to show his sanity. It further appeared that Mrs. Kirby and Dr. Kirby, within a few hours before bankruptcy, had secretly made with way \$20,000 in money, with a strong presumption that this large sum was still in Mrs. Kirby's possession. These facts justly excited the strongest suspicion, and that court would have been derelict in its duty had it not taken the promptest and most vigorous measures. In so doing it was possibly unmindful of the full extent of all the constitutional rights of the attorneys and parties concerned. When a court is shocked almost beyond precedent it is the time for action; and there was certainly an abundance of it, and that without delay. That the subsequent proceedings bore hardly upon all who were concerned was to have been expected, although it turns out, on a careful and extended hearing before another judge, that they were at no time guilty of the serious offense of contempt of court. As has been said of certain political events, "To comprehend all is to justify all."



All other respondents having been discharged, it remains to consider the case of Judge Lantry, who is charged with having committed acts in an endeavor to obstruct the due administration of justice in the Bankruptcy Court; and, as counsel on both sides agree, the sole question is whether he acted in good faith in securing the adjudication in insanity in the County Court, and in using the same as a basis for objecting to the jurisdiction of the bankruptcy court. The use made of the adjudication was to plead it in abatement to the jurisdiction on the theory that another court, through the appointment of a conservator after bankruptcy in a proceeding commenced theretofore, had obtained exclusive jurisdiction, and as a defense in bar on the theory that Dr. Kirby, having been adjudged insane for a year before bankruptcy, could not have committed the alleged act of bankruptcy. As to Judge Lantry, therefore, the main question is whether, in good faith, he thought Dr. Kirby was of unsound mind.

Without dispute the testimony shows that up to about two years before the events in question, Dr. Kirby was a robust, healthy and vivacious man, having a very large practice as a physician and surgeon. His health suddenly began failing, and early in 1911 he was obliged to give up his practice because of failing memory and physical strength. He was afraid to write prescriptions, and sometimes entirely forgot appointments he has made. His weight rapidly fell off, and his appearance was so much changed that, during 1912, his acquaintances sometimes failed to recognize him. Judge Lantry did not see him from January to October, 1912, during which period he had failed in a marked degree.

Obliged to give up his profession, he took advantage of the lax laws of Illinois to start a private bank, of which he became president, and his cousin, a boy of sixteen, was cashier. Neither had had any banking experience. While he was managing the bank he conceived the idea of getting a motor car, painting it red to attract attention, putting a safe in it, and running it around the south side of Chicago, taking deposits and cashing checks. The banking business ran eighteen

months, closing October 31, 1912. On the previous day Dr. Kirby and his wife, by a series of kiting checks, drew \$20,000 from two other banks and lost the same in some manner not clearly disclosed by the evidence, but supposed to have been the old wire-tapping horse-race scheme. During the banking period Dr. Kirby's health steadily declined. His trouble was diagnosed a brain syphilis by Dr. A. Davis, and a course of treatment commenced under Dr. Belsan. It appears that in many cases this disease is innocently contracted; and it is a fruitful cause of insanity.

Judge Lantry had been for some months the attorney for Dr. Kirby, who was owing him \$300 on account. He was called on October 20. He found Dr. Kirby greatly changed in appearance, walking with a shuffle and a stoop, and appearing to be partly paralyzed on the left side. He gave contradictory accounts as to what had become of the \$20,000, and appeared somewhat incoherent. He would not give the name of the person to whom he had given the money, fearing he would be shot. Presently it was suggested by Mrs. Durkin, Mrs. Kirby's mother, that Dr. Kirby was mentally unbalanced. On October 31 Mrs. Kirby for the first time began to doubt her husband's sanity, by reason of some apparently strange actions on his part, and her suspicion was communicated to Judge Lantry. It is, however, apparent from the testimony that Judge Lantry did not regard Dr. Kirby insane prior to the first day of October, when the adjudication of insanity was made. On the previous day he received from him \$500 on account and for future services, and on both days he consulted with him frequently about turning over the business to another bank.

After these suggestions had been made to Judge Lantry he was further informed by Mrs. Kirby that Dr. Kirby had a brain tumor, and by Thomas Durkin, her brother, that he had thought he was insane, giving a number of incidents showing mental weakness. Judge Lantry then consulted Dr. A. Davis and Dr. Belsan. Dr. A. Davis said he had organic brain disease, but thought it was under control, and suggested con-

sulting an alienist. Accordingly Dr. Kiernan, an experienced alienist, was consulted, who pronounced Dr. Kirby to be suffering from paretic dementia. Dr. Belsan also thought he was mentally affected. In addition to such information Judge Lantry was told by Mrs. Kirby that her husband had not been taking the medicine prescribed by Dr. Davis for brain syphilis.

In this situation Judge Lantry conceived the idea of having Dr. Kirby adjudged insane under the statute quoted, of having a conservator appointed, and thus administering his property for the benefit of his creditors. Mrs. Durkin had considerable property, and had agreed to pay Lantry's fee, and help out the financial situation. His idea was to have a conservator appointed who would act without a fee, and for that reason induced a brother-in-law of Dr. Kirby to act, who gave a surety company bond for \$30,000. Lantry thought that bankruptcy proceedings might follow, but would be expensive, and that if the Probate Court of Cook County should appoint a conservator his possession of the property would oust of jurisdiction later proceedings in the Federal court. At this stage it does not appear that he thought of using the alleged insanity to defeat possible bankruptcy by pleading that Dr. Kirby could not, two days before the lunacy judgment, have committed an act of bankruptcy. This theory was conceived at a later time. The bankruptcy court was strongly impressed by the fact that Lantry took \$500 from the bankrupt October 30, and could not, therefore, have thought him insane two days later; but when he took the money the situation had only begun to develop. No one had suggested insanity, nor had any doctor been consulted.

So far there is nothing in the evidence to impeach the alleged good faith of Judge Lantry. It is entirely justifiable to attempt to select the forum, and this is done every day in reputable law offices. The Federal jurisdiction is constantly defeated by alleging damages at \$3,000 or less in cases where the proof will show more, or by joining as defendant a person wholly unable to pay a farthing. These acts are common practice, and not even subject to fair criticism. No court,

by process of contempt, can indirectly add to its jurisdiction. It is charged in the presentment of the grand jury that the County Court proceedings were designed to obstruct the administration of justice in the bankruptcy court. Even if so, no criticism of the act can properly be made, if such proceedings were valid on collateral attack.

It is further charged that important evidence before the County Court was suppressed, that Judge Owens was deceived, and would not have made the adjudication if his attention had been called to the fact that Dr. Kirby, up to the previous day, had been managing a private bank. But it appears in the proofs, without any contradiction whatever, that Dr. Kirby was in such a condition of health as to require care and treatment in a hospital or asylum for the insane. He was, in other words, even if not mentally unsound, at least "insane" within the statute. It is further shown that two doctors, one a noted alienist, and three members of the family had pronounced him insane in the mental sense. Judge Lantry also knew, from what Dr. Kirby told him and what he observed, that the doctor had been acting in a strange manner. Under these circumstances he was warranted in seeking a court where the property could be administered with small expense. He says he had no doubt of actual insanity, that Judge Owens knew Dr. Kirby as well as he did, and he supposed the Judge knew that the doctor was running a bank. He procured several witnesses, two of whom knew all about the banking business. One of these was Ryan, a real estate agent having an office in the bank, and who, if Judge Owens had called him, would certainly have disclosed the fact that Dr. Kirby was in the banking business. Following his usual practice, Judge Owens briefly examined the witnesses himself. He hears a large amount of lunacy cases, and expedition is necessary. Ryan's name appeared on the petition, but Judge Owens did not think necessary to call him. Dr. Belsan's name was also on the petition. He had a considerable deposit in the bank, and this fact was uppermost in his mind. Had he been questioned by the court it is likely this fact would have come out. The names of all who had told Lantry of

Dr. Kirby's mental condition were placed on the petition. All this is inconsistent with any intent to deceive the court on the part of Judge Lantry. It also appears that Mrs. Kirby testified before Judge Owens that the doctor had no real estate except what was in his business, which seems to have been understood by the court to refer to his business as a physician. Judge Lantry testified that he stated to Judge Owens at the hearing that a "property verdict" was desired because Dr. Kirby had a bank; but he is not sure that the judge heard the statement about the bank, and the latter testifies that he did not. Judge Owens thought he had been misled, and set aside his adjudication on his own motion, after the state's attorney had moved to vacate it, and Judge Lantry had moved for an early hearing of that motion.

Events occurring after the adjudication of insanity tend to corroborate Judge Lantry's claim of good faith, even though it was apparent that Dr. Kirby, when he first appeared in the bankruptcy court on the 9th of November, pretended insanity. In connection with the other attorneys in the case Judge Lantry procured a conference of five or six doctors to be held in Mr. O'Donnell's office. All these doctors thought Dr. Kirby insane. A number of other persons told Judge Lantry of queer conduct of the doctor, extending back eighteen months. Another circumstance tending to show good faith was Lantry's action, taken on the 11th of November, in serving notice on the state's attorney of a motion before Judge Owens to have an early hearing of the motion to vacate the insanity adjudication. Instead of opposing that motion he urged a speedy hearing. While these motions were pending, and on November 26, Judge Owens vacated the adjudication on his own motion. It does not appear in the evidence that any person ever expressed the opinion to Judge Lantry that Dr. Kirby was not insane.

On the whole, it appears by the great weight of evidence that Judge Lantry acted in good faith. It is difficult for me to see how any adjudication of insanity under the Illinois statute could be supposed to be an estoppel on the question of



Dr. Kirby's capacity to commit an act of bankruptcy, since the statute defines insanity to include physical disability; but Judge Lantry consulted attorneys on this point and was advised that this was a matter of doubt. Of course such an adjudication might be used as the foundation of a plea in abatement to the jurisdiction, as it was, on the ground that the county court had obtained prior cognizance of the case. It is not necessary to pass upon the question whether such a plea was good. In view of *Farmer's Loan & Trust Co. v. Lake St. El. R. Co.*, 177 U. S. 51, 20 Sup. Ct. 564, 44 L. Ed. 667, such a plea was at least debatable. In that case it is held that prior actual possession of the property by the court first taking jurisdiction is not necessary to give priority of jurisdiction.

Another point of some importance is that, even assuming fraud in the insanity proceedings, they were good on collateral attack. This question is fully considered by Judge Van Fleet in his work on collateral attack, sections 558, 559, and is discussed in *United States v. Throckmorton*, 96 U. S. 61, 25 L. Ed. 93. While not necessary to be decided here, it will be seen that if the lunacy judgment was a valid one it would not be a contempt to assert it in another court.

Without the necessity of applying the rule as to reasonable doubt, as held in *Gompers v. Buck Stove Range Co.*, 221 U. S. 418, 444, 31 Sup. Ct. 492, the respondent Lantry should be discharged for the reason that he acted in good faith, and that he had probable cause for believing that Dr. Kirby was mentally unsound.

Necropsy showed diffuse meningo-encephalitis.

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# INCIDENTAL DELIRIA OCCURRING IN THE INSANE, INCLUDING A CITATION OF CASES.

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Delirium, as defined by one of the modern authors, is conceived to be a state of confusion or disorientation in all the spheres, and by this I mean temporal, spatial and personal, together with clouding of consciousness. The condition is transitory in character; and although it usually occurs during the course of some febrile infection, it is very often observed, not only in the drug habituæ, and in those patients who have been given certain drugs indiscriminately, and who in some cases exhibit marked idiosyncrasies to minor amounts, but in many other instances, such as asphyxia, trauma, anemia and inanition.

The term has often been used in an extremely broad sense, sometimes applying to conditions entirely foreign to the ordinary conception of the word, even entering into the realm of psychology.

The fact that the condition is of transitory nature is important to bear in mind, for in this we distinguish the point of differentiation between delirium and permanent mental impairment—dementia. In both cases the lack of judgment is a prominent feature, while the critical faculty is practically in abeyance; but while in the former the symptoms diminish with the subsidence of the intercurrent malady, in the latter the course is steadily downward; the manifestation of permanent organic changes.

It is extremely difficult in some cases, however, to draw a sharp line of distinction, for not only may an acute delirious state appear in an individual who is already in an advanced stage of mental deterioration, but it may for a certain period, by its multiform psychosensory and psychomotor manifestations, successfully disguise the initial signs and symptoms of some underlying malady, whose course tends to bring about progressive mental enfeeblement.

If one would understand the subject of delirium, he must needs make an analysis of the various motor and sensory phenomena occurring throughout its course; for although the numerous drugs and infecting agents may each give a distinct and characteristic coloring to the picture, nevertheless the background of confusion with clouding of consciousness stands out prominently under the varied, and often fantastic, hallucinations and delusions.

Turning then to the sensory field, we first consider the hallucinations and illusions so characteristically present in these forms of mental aberration. These false sense perceptions are frequently multiform in type, and are often a source of abject terror to the patient; while on the other hand, they may be of considerable interest or fascination, sometimes forming the basis of an occupation delirium, which is so often seen in delirium tremens, and at times in certain cases of Catatonic Dementia Præcox.

It goes without saying, that upon the character and variability of the hallucinations, which in themselves may be intimately associated with the subconscious stream, the undercurrent, so to speak, containing practically all the events of the psychic life, are built a loose and unstable system of ideations, the delusional character of which varies with the type of the hallucination, and the intensity and apparent reality with which it becomes manifest.

A few abstracts from selected cases in the clinical records at the Government Hospital for the Insane, may serve to illustrate that these hallucinations and accompanying ideations are not only based upon a false conception of the mind and its

relation to the environment, but that they are often dependent upon, and intimately related to, the everyday life of the individual.

Case A.—Toxic delirium due to chloroform.

The patient, a Government employee, had been an habitual user of the drug for many years. He began by inhaling a few drops from a handkerchief each evening in order to secure relief from pain in the stump of a limb which had been amputated.

When he first began using chloroform in sufficient quantities to produce an effect, he experienced the most delightful and wierd sensations; he imagined himself in the company of gaily dressed people, all of whom he knew; everything was beautiful; he had a sensation of peace and rest. This of course was followed by the usual disagreeable after-effects, such as nausea and headache, when the drug wore off. As time went on, and he began using the drug in increasing amounts, which he found necessary to relieve the pain, he would feel very languid in the mornings, and was finally obliged to give up work. A little later he took to his bed.

On admission to the hospital he was in a wretched physical condition; being a man of 5 feet 9 inches in height, his weight was 101 pounds. Shortly after his arrival he developed extravagant optical and auditory hallucinations, saw members of his family fighting with the patients and attendants; heard voices saying they were going to kill him, and held frequent conversations with President Taft in one of the adjoining rooms, also with a woman who wore a hat he had seen in a shop window. He believed that the paraffine used on the floor had the odor of chloroform and was used to anæsthetize visitors. He was wildly excited at times, throwing his arms about and shouting at the top of his voice. He made a good recovery, however, after a five months' stay at the institution, and when he left he had gained thirty pounds. There was, however, some impairment of memory, especially for recent events, which might in part be due to the chloroform, and also to the fact that the patient was well advanced in life.

Case B.—Exhaustion Psychosis, following Parturition.

The patient, a nurse by occupation, had always been considered peculiar. She was of an irritable and precocious temperament; intimate friends said that on several occasions she had done peculiar things, and at one time she ran out into the street in her night clothing. After her marriage she was very irritable, especially during the menstrual period. Her first confinement was extremely difficult, instruments being used, and the child was born dead; she was very weak after labor, and for a long time her life was despaired of. Her psychosis began at that time.

On admission to the hospital she was restless and excited, at times abusive and showed incoherence with flight of ideas, having little or no grasp on her surroundings. She would remove and destroy her clothing, and was very untidy in her habits.

Physical examination showed her to be fairly well nourished, but examination of the heart revealed a loud systolic murmur at the apex, transmitted to the axilla. She soon developed visual and auditory hallucinations, heard her husband talking in the ward, and saw him flirting with the nurses. There had always been a strong sexual trend in her make-up, as was evidenced by various remarks noted in her history. She was, shortly after admission, placed in a warm continuous bath, and while there the following stenogram was taken, which brought out a broken chain of ideas that nevertheless had a distinct bearing upon some of the events of her professional life. A sample of the remarks noted is as follows: "Litmus paper, M. D., making prescriptions, writing prescriptions, put down dust, locomotor ataxia, cow, sugar, dairy products, weighing ounces a week, 98% cream, 4% fat, sulphuric acid, sordes on the teeth, stenographic, stenogram, Rock Park," etc.

The case, when taken as a whole, presents not only some of the features characteristic of the degenerate, together with some maniac features, but to my mind, in considering the life history as a whole, it has the appearance of an exhaustion

delirium occurring in a dementia præcox. The patient left the hospital after nine months in a fairly normal condition, having gained in weight.

Case C.—Intoxication Psychosis due to Carbon Monoxid.

The patient, a woman of about 45 years, was employed as a domestic. She had always been of a cheerful disposition, and of a religious turn of mind. One night she went to bed in her usual good health, but in the morning, she not having arisen at the usual hour, the other servant found her in an unconscious condition. The odor of escaping illuminating gas attracted attention to the stop-cock, which was found broken, but the fact that the window was open to its full height showed that no suicidal tendencies existed.

She was taken to a local hospital where she remained four days in a stuporous condition, during which time she showed some rise of temperature with rapid pulse and respiration. She gradually aroused, but was restless, dull and apathetic. At the end of ten days she left the hospital, and after spending a week with a relative she returned to her former employment. Here, however, she showed mental torpor, would perform erratic acts, memory was very poor, and she could not perform her usual duties. She was obliged to give up work, and came to her aunt. The latter noticed that she laughed without cause, was unable to find her way about, and talked incoherently. She grew rapidly worse, was unable to care for herself, was confused, and untidy in her habits.

On arrival at the hospital she showed clouding of consciousness, and was disoriented in all spheres; could give little account of herself; was untidy and soiled the bedding. At times she was unable to identify familiar objects, and made frequent mistakes in persons and names.

Physical examination showed her to be fairly well developed; slight scoliosis of the spine. The heart showed slight enlargement with a presystolic murmur at the apex; second pulmonic accentuated. Lungs showed few crackling rales at the apices. Olfactory sense showed impairment, a number of different odors not being differentiated. The knee jerks were

all exaggerated. Babinski was marked on both sides and the tongue and fingers showed a fine tremor. The gait was ataxic.

The patient made a good recovery after a four months' sojourn at the hospital, and when she left, her memory for both recent and remote events was excellent.

Case D.—Acute Delirium associated with oedema and hyperemia of the brain.

The patient, a colored man of 58, had used alcohol for years, and at times to excess. On arrival at the hospital he was confused and greatly excited, showing great psychomotor activity, constantly moving about, shouting, singing and talking incessantly. He showed marked visual and auditory hallucinations and was disoriented in all spheres. Said he was a white man and was wiser and better than Solomon; that he was God the Father wrapped in human nature. Said he had been given gall and bitters as Jesus received on the cross; someone came in his room and gave him chloroform. The Book of Revelations was opened, and he heard Christ coming as the old world passed; he saw George Washington, he saw a horse's paw, and it said "bar-bar." He saw snakes, angels, animals and hideous faces. The patient grew steadily weaker and died after a month's stay in the hospital.

Autopsy revealed hyperemia of the brain, and catarrhal pneumonia of the upper lobe of the right lung with pulmonary oedema.

Case E.—Post Traumatic Delirium.

Patient, a man of 62, had been drinking heavily during the latter part of his life. About two years prior to his entrance to the hospital he had struck on his head in falling from a wagon. For months afterwards he had been unable to walk and had been acting in a peculiar manner.

On admission to the hospital he was confused and disoriented in all spheres, in fact seemed entirely oblivious to his surroundings; was extremely restless and imagined his daughter was in the next room.

Physical examination showed a slender, weak old man,



skin dry and wrinkled, showing all the evidences of senility. Heart showed a mitral systolic murmur transmitted to the axilla. At times a marked twitching of the hands would be observed. He gradually grew weaker and died after being in the hospital about four months.

There are many other cases of delirium which have come under observation at the hospital from time to time, but they are too numerous to mention here; and although each individual case may present an unique and at times fantastic and bizarre set of hallucinations, and the accompanying delusions, loosely organized because of the unstable foundation upon which they are erected, nevertheless the fundamental characteristics, viz., confusion with clouding of consciousness, are the dominant features.

Another prominent factor in all these cases is the state of exhaustion, and, to bear out this statement, I quote from an article by "Hirsch" in the Reference Hand Book of Medical Science, in which he makes the following statements: "A genuine delirium indicates often a state of inanition demanding energetic stimulation. It may appear during the course of various mental diseases, and in such cases always indicates general exhaustion. It is of bad prognostic significance when it develops gradually under these circumstances, and is not infrequently the first sign of approaching death."

Again he states that the hallucinations are produced by psychosensory irritation, and that the psychomotor irritation is responsible for the impulsive movements. This being the case, they must both be more or less dependent upon some toxic product, either as the direct result of infection, or to the catabolic changes in connection with excessive tissue waste.

At this point it might be well to consider for a few moments Case D. Here we have a middle-aged negro, who, naturally endowed with all the superstitions and imaginative powers characteristic of his race, and who, at the same time undoubtedly appreciates his relation to society, finds consolation in wish-fulfilling dreams. He is a white man, even wiser than Solomon; wishing to be great, he is great, and as

stated by Dr. White in his treatise on dreams in Mental Mechanism, man will have his way, if not in the realm of facts, then in the realm of fancy, and in this case of acute delirium, where the controlling power of judgment or critique has been removed under the influence of disease, we see the subconscious coming to the surface and finding expression in the wanderings of a psychosis.

Not every excited mental case with hallucinations and delusions can be classified as a delirium, but the fact that the condition may occur at any time during the course of almost any psychosis, due either to some indiscretion, as in the alcoholic, or to some cerebral irritation, as in the epileptic, is important to bear in mind, for although it is of transitory nature, it may exert a decidedly evil influence upon some well established degenerative change, or be the forerunner, so to speak, of progressive mental deterioration.

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## THE RIGHTS OF PATIENTS.

A selected editorial article from Medical Review of  
Reviews for commendatory comment.

BY THE EDITOR.

"Institutions, even hospitals, despite their humanitarian work, frequently become callous to the feelings of sufferers. The social worth of an institution is frequently indicated by its conception of duty towards the community it serves. Some hospitals, at times, act as if the unhappy sick belong to them. As a matter of act, hospitals and all institutions working in behalf of the public health belong to the people, save the few institutions that are organized and managed by self-constituted bodies for their own commercial benefit.

The rights of a hospital to transfer patients without consent is frequently assumed. No institutions should transport patients from one place to another, as if they were cattle, because it does not wish to have its mortality rate increased or because it does not care to house a patient of a particular color, creed, or denomination. The dictates of humanity and conscience should give rise to common sense in hospital administration. Patients, the poor, foreign, and ignorant, have hospital rights which should be recognized even by the super-intelligent interne who, perchance, may be the arbiter of their fates.

Recently a child who contracted measles while a patient in a children's hospital was transferred, without the knowledge or consent of the parents, to a hospital for contagious diseases, where it soon after died. A city hospital to which had been sent a patient ill with tuberculosis, transported the almost moribund girl to a hospital far removed which could not receive her, then delivered the patient as so much baggage to a second institution for which she was not fitted, and finally had to drive her back to the original hospital until she could

be placed in an institution, where Death found her about a week later. In the meantime a distracted colored mother was trying to find her child, and learn why such treatment had been accorded her inasmuch as no consent to transfer had been asked or given. If the parents of either of these children had had wealth or influence these incidents probably would not have occurred, or if such inhuman practices had been suffered lawsuits and untold publicity would have followed.

Internes, head nurses, even hospital superintendents occasionally arrogate to themselves superior manners and authority as if they had just descended from Olympus and were giving the common people the privilege of sitting at their feet. Such self-constituted, imaginatively developed, and self-asserted superiority of public servants is to be deprecated. To serve humanity is noble work, but it should be accompanied with both dignity and humility and not with arrogance and cold indifference.

Patients and the relatives of patients are entitled to courtesy and humane treatment, even if by virtue of unfortunate circumstances they are obliged to be charges in the public wards. Institutionalism is not a term which at present conjures up pleasant memories. It is time that the hospitals and the dispensaries become socialized. A splendid start could be made in the admitting rooms. The more ignorant, stupid, nervous and poor the patients are, the greater is the necessity of a humane and understanding admitting physician."

This is timely and pertinent. It hits the nail squarely on the head or rather some of our interne medicos, "clothed with a little brief authority," in hospital or dispensary who, forgetful of the fact that the humblest and most indigent of patients have hearts and feelings and rights, do "bestride the earth" of the dispensary or wards of a hospital or before helpless down and out indigent sick, "like a colossus," without thought of the claims of the humblest who are ill, to kind, considerate treatment in manner, prescription and speech. We plead for consideration of the disabled under dogs of our human but not always humane species, in their feeble and handicapped fight for themselves in the unequal battle of life.

# THE DIATHESIS EBRIETATIS AT THE COMMUNION TABLE AND ELSEWHERE.

BY THE EDITOR.

If there is one place more than another where the peril of alcoholic inhibition is gravest, it is here. Any observant clergyman may note this peril among reformed inebriates. The experience of Mr. Denyer, recorded in the *Alliance News*, of "a number of cases in which communicants have lapsed into drunkenness through the use of fermented wine at the Table of the Lord is not common," says this gentleman. The julep and the cocktail before meals and the daintily handled glass proffered in my lady's parlor are serpents of the still that "sting in the last like an adder."

Bishop Thornton's experiences in East London, which we take from the same literary source, led him to study the question, and he found it necessary, in the case of "reclaimed" communicants, to "retain control of the cup, lest to some of them the temptation to 'gulp' might be too strong." Some years' experience as a chaplain to a large Female Inebriate Asylum proved to him the impossibility of administering the communion with the fermented cup."

(The individual glass now becoming common, of course mitigates this danger somewhat.)

The strong drink craving constitution entailed or bibulously acquired, must be reckoned with by church and state and people and even by physicians in their prescribing. There are those to whom the putting of the cup to the inebriate's lips is perditionally perilous, and woe unto him that doeth it. Safety with such lies especially in the patriarchal injunction, "touch not, taste not, handle not." This is the testimony of neuropathic science concerning oinopathy. Here is where psychiatry as well as eugenics, which is a part of psychiatry, should have due consideration in medical as well as popular thought and action.

# THE PHYSICIAN'S DUTY IN FORMING PUBLIC OPINION.

AN ABSTRACTED ARTICLE,  
WITH EDITORIAL COMMENT.

About a year ago *La Tribune Medicale* contained a thoughtful, forceful and timely editorial on the above subject, which, not having received from our American contemporaries the attention it deserves, is here given place, because not only it merits the attention of medical men everywhere, but because it is likewise in harmony with our own opinion on the subject.

Men of medicine with their superior knowledge of man psychical and physical, as compared with most of their fellows, are peculiarly fitted to enlighten the less informed and guide and lead the civilized world in the way of its highest mental and physical welfare, and this includes his political improvement in the direction of his highest and best state of being and away from the perils of degeneracy and retrogression to the semi-barbaric life. For without advance in scientific, moral and mental enlightenment it would not be difficult for calamity to come in that universal democracy towards which the world is rapidly tending through the threatening "cult of incompetence" and the numerical preponderance of mediocracy as we see these coming to the fore in certain half-enlightened and only partly true politico-social propositions and organized movements.

There is a place, and a much-needed one, for the enlightened physician and scientist in social and political life, and he ought to be worthily filling it. He should help with his knowledge and to avoid a possible calamity of national de-



cadence and reversion to conditions that may lead to racial extinction.

We are unconsciously making profound social and political changes arising from a mental fermentation which appears to be affecting not only the highly civilized races, but also the semi-civilized and backward nations, as evidenced by the revolution in China. In India, where custom has always been considered immovable, a very interesting contribution of Dr. Hari Mohun Sen, of Dinapur, on the "Health of India, Its Past, Present, and Future" (*Tribune Medicale*, Feb.-Mar.-April, 1912), shows that even the sleepy East is waking up to the necessity of modifying ancient caste and social prejudices. However repugnant a rearrangement of society may be to the conservatively minded, there is too much impetus behind the movement to hope for any permanent arrest in its progress. As an indication as to the way things are trending, we have only to reflect on the long series of concessions wrung from the capitalist in recent years by the laboring and agricultural classes, who, through their unions, now practically control production and all sources of wealth, so that we are actually witnessing the beginning of a gradual confiscation of private wealth and the extinction of individual and corporate profits which must curtail if not arrest in the creating of new industrial activities.

Whatever our private views may be on socialistic questions, the sooner we become accustomed to its possibilities, the better can we use our influence to intelligently direct the movement in regard to questions for which our training and experience especially fit us.

It is useless to analyze the alleged causes of these so-called socialistic tendencies (*e. g.*, the sentiment of revenge by the unsuccessful; the utopian ideals held up to the mediocre); for the movement is too powerful to be ignored. Whether the reorganizations of society will be universal or localized in one country; whether it will be permanent, successful or a failure; whether it will increase the general well being, or give rise to confusion and misery, there can be no doubt that the experiment will be attempted sooner or later on a vast scale.

As men we must therefore face the future with courage and add our quota in guiding public opinion on essentially medical aspects of the subject, which must of necessity be taken seriously into consideration, and, above all, we should use our influence to prevent the fundamental mistake of empowering primitive types of humanity in a transitional stage of mental development, from dictating, at the bidding of demagogues, how the world's work should be done.

It is unfortunate, but undoubtedly true, that the prevailing socialistic theories encourage continual concessions to inferior grades of society, so that with the control of many natural laws which heretofore diminished the production of defective offspring, stagnation must result by the crushing out of the superior elements from the sheer mass of undesirables.

As Emile Faguet, of the French Academy, says in his recent work, "The Cult of Incompetence," "I have often wondered what principle democrats have adopted for the form of government which they favor, and it has not required any great effort on my part to arrive at the conclusion that the principle in question is the worship and cultivation, of, briefly, the cult of incompetence and inefficiency." "Democracy is thus led quite naturally, irresistibly, one may say, to exclude the competent precisely because they are competent." This it is that made Aristotle say that where merit is despised, there is democracy.

"Democracy in its modern form encroaches first upon the executive and then upon the administrative authorities, and reduces them to subjection by means of its delegates, the legislators whom it chooses in its own image, that is to say, because they are incompetent and governed by passion."

Dr. Allan McLane Hamilton in the *N. A. Review* for March, 1908, pointed out the danger of the high executive offices being held by men with psychopathic tendencies, and again in the *N. Y. Times* for May 12, 1912, the eminent professor of mental diseases at Cornell University Medical College says: "Their shortcomings are due to defects in early education or to later ignorance; some are by nature vain and vulgar and abusive, or swollen with conceit, and in every way

lack stability, dignity and judicial capacity.

"Others have espoused the anarchist doctrines of equally crazy agitators and revolutionists.

"Still others belong to the well-known psychopathic class who are able to gather about them a following of unthinking adherents who, as a rule, are discontented, and whose pabulum is the sensational newspaper or the muckraking magazine."

"Most of the projects and loudly advertised plans of reform are not carried out, but dropped when the first effect is produced and the vanity temporarily gratified. The delusive hatred of others is hardly distinguished from the effeminate spite of hysteria or temperamental defect."

"It therefore becomes the great American public to exercise the greatest care in the selection of a President, for if men are accepted at their own estimation or hysterical suggestion takes the place of good sense, there is nothing but ruin and dissension ahead.

"Unlike the sane, well-balanced man, the self-interested and shrewd paranoic, especially if with a following of unbalanced persons more ignorant than himself, may skillfully play upon all the passions implanting dissension and dissatisfaction, and possibly overthrow the long established laws made by other minds."

We must hope, therefore, that great medical minds may be allowed to direct popular theories of government in all that appertains to eugenics.

It is well to bear in mind that man progressed not only in spite of, but because of, what we now consider vices and animal passions. Intense selfishness, brutality and utter disregard for the injury resulting to his fellows, were cardinal virtues in the savage, necessary for his very existence in his struggles with the elements, wild animals and his own kind, and even with the dawn of intelligence, a low cunning, which we now consider ignoble, prevailed, and morality only slowly gained ground. As he began to make provision for the morrow and replaced the chase by agriculture, he relied more upon forethought and experience than on residual brute instincts for maintenance, until, in the course of time, a glim-

mering sense of tolerance and justice developed which rendered social relations outside his immediate family impossible. This, finally, culminated in those nobler humanitarian sentiments of love and sympathy which now sway the best of mankind. Yet, strange as it may seem, forbearance and non-resistance are responsible for our present social and political unrest, because the unscrupulousness, immorality and brutality, proper to the prehistoric cave man, are unequally transmitted in his descendants of to-day.

Civilization unfortunately has not established a uniform type of man, for development has not proceeded in the same uniform ratio as has obtained in wild animals under the rigorous laws of the survival of those individuals best suited to their environment. In the dim vista of the remote past, intense selfishness and the ability to plunder or defend, were the salvation of the family; to be timid or considerate of others, meant extinction. It was scorned and unappreciated then, as it is to-day, by individuals with a preponderating primitive activism which has outlived its usefulness in promoting human progress.

This opinion may be challenged by those who have not had the opportunity of coming in contact with the primitive peoples of Africa, Australia, Malay, Asia, India and the South Seas. Such races as are in a low state of mental development do not, in our experience, appreciate consideration, but mistake it for fear. In their heart of hearts they despise and lose respect for those who treat them with kindness, and even such as have had the advantage of some education and training by missionaries, are only modified on the surface, and relapse when circumstances make them forget the restraint imposed on them.

So-called crimes, therefore, in our opinion, should be considered as due to an abnormal anatomical relapse to ancestral defects which, according to Mendel's law, occasionally crop out, and are only restrained by a thin veneer of social polish enforced by contact with the truly civilized.

Education, example and restraint may do something

with retrograde individuals, but after all, the individual lives and dies much in the state he is born in, and any apparent improvement in the so-called criminal, simply means the unfolding of some few latent and desirable inherited qualities.

Evolution and selection antedating birth alone make for real progress, and laws which will tend to encourage healthy progenitors with desirable characteristics approaching as nearly as possible a normal mental and physical type, are the true solution of the social problem.

Crude processes of natural selection are now so modified by increased brain development in man, that the unfit together with the best types are preserved; this selection of progenitors, however, should be confined to the better elements of society and the privilege should not of necessity be extended to all. Unfortunately, the inferior are more prolific than the intelligent, so that the majority contains a higher percentage of inferior over superior types.

The prospect is not encouraging, because it necessitates a government with the moral courage to enforce restraint and practical eugenics in order to counteract the tendency to degeneracy which unwise socialistic theories are liable to accentuate as they gain more and more ascendancy in the dictation of social and public affairs.

In order that the medical profession may obtain the necessary influence in guiding public opinion, we should be represented in the Cabinet, and this is now a vital question which has reasonable prospects of success.

In order to command respect, we as physicians should strive to raise our standard of professional ethics, dignity and knowledge, for we cannot disguise the fact that we do not hold the same exalted position in this country as in Europe, owing in a measure perhaps, to the overcrowding of our ranks and the only recent enforcement of thorough medical education at our schools.

Among other things, our legislators should be made to understand that the good accomplished by hygiene, asepsis, sanitation, preventive medicine, better food and in-



creased material comforts in the last few decades, has not been unmixed with evil results, for it has brought about the preservation of physically inferior children and adults who would have inevitably perished even fifty years ago. We are in this way diluting our desirable stock with strains of civilization's submerged strata which do not make for material or moral progress. This necessitates the humanitarian creeds of labor union demagogues, who advocate the accommodation of conditions to meet the mean average intelligence, which tends to a leveling down rather than an upward process. Humanity has reached a stage in mental advancement where it has a right to determine who shall and who shall not procreate, and the initial steps in correcting some of the ills we now suffer from has been the work of physicians as exemplified in the Indiana law and some other states with regard to the sterilization of the criminally insane. The Louisiana State Medical Association is now urging the passage of a law which will deprive habitual criminals and drunkards of both sexes, of the power of reproduction, and we may hope that this will become universal on the North American Continent within a few years.

In July next, the first International Eugenic Congress will be held at the University of London and will be attended by from five to six hundred scientists, including distinguished biologists and physicians. Unless something is done to prevent a decadent posterity, we must continue to revolve in a vicious circle; periods of great brilliancy, vigor and prosperity, alternating with long periods of darkness.

Since the entire world is now linked up by commerce and easy communication, a retrograde movement involving the most civilized and temperate zone parts of the world, would be more serious than the temporary setbacks which occurred to ancient nations who fell by the wayside after periods of great virility and prosperity, for they were isolated oases among barbarians. It is true that the uncivilized in turn improved either from within, or by contact with more advanced peoples without, but a renaissance is less



likely to occur in the future than in the days when humanity was young and unjaded by generations of strenuous nervous tension.

As physicians, our duty to the public should not only be confined to councils of hygiene, sanitation and preventive medicine, but must also include the sexual relations, the care of children, the vexed subject of animal experimentation, eugenics, physical and mental improvement, questions in fact which are now boldly treated in our newspapers and magazines by laymen who do not grasp the physiologic and psychologic aspect of these questions from the same practical standpoint as the medical profession.

The question is by no means hopeless; our medical journals are taking up the question of eugenics energetically.

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## "SURGERY AS A CURE FOR INSANITY."

An Erroneous View of Insane Hospital Treatment—Selected for Comment by the Editor of This Magazine.

"Probably no one subject pertaining to the practice of medicine has been so neglected and treated with such scorn and indifference by the profession as insanity, and surely no class of patients ought to appeal to us more than these unfortunates, because of their utter helplessness.

The profession at large looks upon these people in the beginning usually as nervous breakdowns and advises them to go to sanitariums and rest cures, etc., and when they become too bad or unmanageable they advise their commitment to asylums.

"The family physician may have had the care of the patient for months, prescribing the usual nerve remedies to quiet them, and when they are removed to the asylum, little else is done beyond confinement and restraint."

"The treatment of the insane patient has scarcely advanced beyond the dark ages. Institutions are endowed by private and public charities for the purpose of taking care of the insane, and the patient is placed therein under restraint, but little or no effort is made to seek out the cause of his affliction." (Egregious error.)

"Many of these people could be turned loose if it were possible for them to make known their wants, and if the same amount of care and skill were bestowed upon them that is lavished upon the sane, but the very nature of their troubles puts them in the light of the shunned and neglected. Of course, their words and complaints are treated

as of the irresponsible, hence of little or no weight." (Mistake.)

"Knowing all these things, we owe to these patients a manifold duty; one of sympathy and surely a professional obligation to see into their physical wants. The latter we have shamefully neglected."

"Knowing as we do the many mental symptoms that arise from physical ills, it is incumbent upon us not to look lightly upon the symptoms manifested by the insane. The vast majority of postmortems made upon those who have died while insane has not proven cerebral degeneracy, but has shown the cause to be foreign to the brain. I doubt not if the same advancement that has been made in treating diseases of the internal organs would be applicable to those mentally affected, 50% of the inmates of the asylum would be at large and become useful citizens."

Dr. M. J. Buck, of Pittsburgh, Pa., writes the above for the *Medical World*, August, 1913—and cites four cases of operative success with consequent recovery in his own experience.

There is some exceptional truth in the above statements excluding Doctor Buck's medical experience, but an extreme amount of error, of which the better informed editor of the *Medical World* knows as he shows in the following correct comment:

"Much is being done nowadays in insane asylums to cure, by medical, surgical and other therapeutic means, the insane committed thereto. Great progress has been made in these matters ever since the days of Pinel.—Ed. *Med. World*."

- The general estimate and treatment and care of the insane has advanced to an amazingly enlightened plane since the dark ages, Doctor Buck to the contrary notwithstanding.

The modern hospital with its homelike sanitary and delusion-diverting features, conveniences, personal comfort, change of environment from the place where insanity usually has its inception, and the change of name from asylum to hospital or sanitarium is evidence of the present

day advance in view of the psychic and medical therapy of insanity, or rather of the insanities is evidence of medical progress for the welfare of the insane alone, to say nothing of the special teaching of psychiatry in medical schools, the organization of psychiatric associations, the provision for diplomas in alienism as in Great Britain.

The general medical conception of insanity as a psychic somatic affection and the approved therapeutic efforts in vogue in the profession concerning insanity refutes the view of Dr. Buck.

Fewer operations are performed on the insane in hospitals for them than outside because of the delusional aversion against the knife and other difficulties and embarrassments better known to insane hospital medical officers than known to surgeons outside.

When the writer was in supreme charge of such an institution he did his own surgery and treated the medical ailments of his hospital patients all over to the best of his ability, remedying whatever he discovered was wrong in their organisms. Medical superintendents, so far as he knows as a member of the American Medico Psychological Association (and of Great Britain as honorary member) treat their insane in the same or a similar manner. His observations of other insane hospital superintendents are all similar.

In fact, the average so-called insane asylum medical officer is a superior diagnostician and therapist considering always the psychic as well as the physical needs of his patients.

That many cases of insanity are due largely to extraneous causes indirectly involving the brain may be conceded from clinical experience, but seldom exclusively, for there is the psychopathic diathesis to be considered, which determines psychic overthrow under distant traumatism. In fact, insanity is usually the product of two or more generations of this psycho-somatic disease or proclivity to insanity, as most alienists of large clinical experience affirm, with predisposing factors, as well as exciting or final determining factors.

In conclusion, Dr. Buck, to elucidate his view that many cases of insanity are due to extraneous causes and "not to be attributed to the brain," cites the four cases that came under his care during the last ten years. But insanity did not supervene till the nerve center strain of the diseases demanding operative relief, involved the brain also in disease disordered action, for insanity is always a disease primarily or secondarily involving the brain, and is usually the product of hereditary or predisposing aptitude in the brain to take an insane departure from the brain's natural and normal function direct or indirect disease—though direct traumatism or extreme toxemia may cause this calamity to brain and mind.

But it is a clinical and therapeutic fact for surgical or medical psychiatry that every source of peripheral or extraneous irritation to the brain and mind should, when practicable, be removed from the body and environment of the insane with a view to recovery or prevention of insanity.

Appropos and in refutation of the misconception on the subject of treatment of the insane in our hospitals, especially surgical, we make the following abstract, the first one and nearest to hand of our insane hospital reports. This is from the Utica State Hospital, and is headed "Surgery," report, 1913:

"During the past year, attention was directed to a number of pathological conditions for which surgical interference was deemed necessary. The operations performed include two laparotomies, one herniotomy, one cauterization for prolapsed rectum, one mastoid resection and one tonsillectomy. The laparotomies include one complete hysterectomy for fibroid uterus and cystic degeneration of the ovaries, by Dr. F. J. Douglas, acting consulting surgeon of the staff, and one oophorectomy and trachelorrhaphy by Dr. Hicks of Amsterdam. Great relief was afforded a male patient suffering from direct inguinal hernia when Dr. Glass, of the consulting staff, performed a Bassini operation. The mastoid resection and tonsillectomy were performed by Dr.

Gage of the consulting staff. The results in all these cases were uniformly good.

Many cases requiring minor surgery were cared for during the year as occasion demanded, etc.

The next heading is Gynecological Work.

In getting the history of the female patients, the nurse sent for the case pays special attention to the history of any disease in the reproductive organs and makes a definite report on each case.

Before leaving the reception building, all female patients are interviewed by the woman physician. A pelvic examination is made and when indicated appropriate treatment is instituted.

From time to time, pelvic symptoms arise in the women \* \* \* and the attention of the woman physician is called to these cases. The senior nurses receive a course of lectures in gynecology and obstetrics and are instructed in the special care of the women patients."

In reach of our table as we write is another, that of the Butler Hospital of Providence, R. I., whose first superintendent was the eminent alienist author, Dr. Isaac Ray, to whom the writer owes much for valuable counsel and clinical instruction, both by word of mouth during visits to this same institution and through the great alienist's writings.

This report advises us that:

"In 1870 the State Hospital for the Insane was opened at Howard and seventy pauper inmates of the Butler Hospital were transferred to it, and this action was the leading cause of a far-reaching change in the policy of this institution. Up to 1870 it had been the only place in the State where the insane could be kept and made comfortable, and far the larger part of its inmates had been incurably insane and it had been forced to become an asylum rather than a hospital—a refuge and home for the insane of the State where they were carefully looked out for and fed and kept alive, rather than an institution where those in the incipient stages of mental disorder could be treated by skillful physicians and watched over by trained nurses in the effort to



alleviate and cure the disease they were suffering from.

After 1870 it was decided to make the hospital a curative institution, and ever since its best efforts and its increasing expenditure of money have been directed to trying to cure its patients. It was also decided to transfer to the State institution patients who were found to be incurable, and to decline to receive applicants for admission whose cases seemed to be hopeless and who would not be benefited by treatment, in the expectation that thus more room would be made for the reception of patients who might be benefited by treatment," etc., etc.

The transition in name from lunatic asylum to insane hospital, and now to simply hospital, which designates most of these institutions, indicates the curative features of these institutions.

The words "for the Insane" in this title of Butler Hospital were rarely used in common speech. In 1906 they were formally dropped by act of the General Assembly. These and the words lunatic asylum are now rarely used anywhere in connection with places where insane are treated. Nor are there any bedlam or mad houses now. They are simply hospitals where the mentally ill are treated humanly scientifically.

The motto on the seal of this great hospital indicates its hospital feature, as it does the curative medical treatment purpose of other like institutions. "Miseris succurrere discite," and "Learn to help the afflicted." And they are doing it at Butler.

While endorsing the propriety of properly timed and executed surgical procedures for the insane, gravely diseased external to the brain, and for certain cases of brain disease or injury implication, we could not, in the interest of sound psychiatry, medical as well as surgical, permit the erroneous opinions respecting modern hospital treatment of the insane of this paper to go unchallenged. The author is more familiar with practical surgery than with psychiatry as practiced in our non-politically managed hospitals for the insane.

## SELECTIONS

### NEUROANATOMY.

A NEWLY DISCOVERED NERVE.—Before the last December meeting of the Minnesota Neurological Society (St. Paul Medical Journal report):

“Dr. J. B. Johnston demonstrated the *nervus terminalis*, a nerve not hitherto known in connection with the human brain; this being the first instance in which this nerve has ever been shown in the brain of man in a formal society meeting. The nerve is non-medullated, having one or more rootlets attached to the brain in the medial part of the anterior perforated space. The rootlets run forward beneath the pia between the olfactory peduncle and the median fissure, unite into a common trunk and pass through the anterior part of the cribriform plate to the nasal septum. The nerve is present in all embryonic, fetal and adult brains examined. In some individuals ganglion cells have been found singly and in groups in the course of the nerve. The nerve is supposed to contain both sensory and motor sympathetic fiber.”

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### NEUROPATHOLOGY.

MYXIDIOCY IN THE PRESENCE OF THE THYROID GLAND.—The rare occurrence of myxidiocy in spite of the presence of the thyroid gland is explained by the author in the following manner: As the result of a developmental disturbance there has ensued a deficient growth of the brain and of the system of endocrine glands, especially the testicles, thyroid, and hypo-

physis. The idiocy is the result of the underdevelopment of the brain. The disturbance of correlation of the entire glandular apparatus thus produced gives rise to the myxedematous condition. Goldstein (*Deutsche Zeitschrift für Nervenheilkunde*), *Archives of Diagnosis*. Sajon's and Taylor's *Cyclopedia*.

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## NEUROTHERAPY.

EPINEPHRIN ACCORDING TO CAUSES.—Decrease of albuminuria and an increase of urinary output, but parenchymatous degeneration of the kidneys is in no way influenced by epinephrin. Hess and Wiesel (*Wiener klinische Wochenschrift*, February 27, 1913).

NEUROTIC ANOREXIA.—While loss of appetite and nausea are usually symptoms of a host of diverse pathological conditions, they sometimes constitute a disease in themselves—a kind of neurosis. In these cases the physician will find Gray's Glycerine Tonic Comp. of almost specific value for restoring the impaired appetite. It is not only agreeable to take, but produces its benefits at once in such a natural way that before the patient realizes it, the normal amount of food is being taken. It is also exceedingly useful in relieving nausea in early pregnancy.

ADRENALIN GLYCOSURIA.—A number of important results have been obtained in the investigations carried on by Anastazy Landau and reported in the *Zeitschrift für klinische Medizin*, Vol. 79, Nos. 3 and 4. He found that whereas 150 grams of grape sugar increase the sugar content of the blood, this increase is as a rule insufficient to evoke glycosuria. If adrenalin is injected subcutaneously it gives rise to glycosuria provided that immediately before the injection the organism receives a considerable amount of grape sugar or of foods containing it. In this case the glycosuria is accompanied by a marked hyperglycemia. If, instead of grape sugar, levulose is administered, no glycosuria results.

Another important observation made is that the glycosuria-producing and the diuretic powers of adrenalin are quite independent of each other. Moreover small doses of cocaine sensitize the action of adrenalin, increasing both the hyperglycemia and the glycosuria. On the other hand a preparation containing the total alkaloids of opium, if injected with adrenalin, inhibits the glycosuria-producing powers of the latter. The mechanism of this inhibition is twofold. On the one hand the opiate delays the mobilization of the glycogen in the liver and reduces the hyperglycemia; on the other hand it diminishes the glycosuria by impairing the secretory activity of the kidneys.

The above facts are pregnant with significance from the viewpoint of the mechanism of diabetes and its treatment. There can be little doubt that a derangement of the internal secretions is at any rate in part responsible for this condition, and that possibly an excess of the internal secretion of the suprarenal capsules or of some allied gland is an important factor in the production of diabetes. There is another necessary component in the nexus of adrenalin-glycosuria, namely, the intake of a sufficiently large quantity of grape sugar. In other words the dietetic factor in diabetes is an important one. Another fact brought out by the experiments of Landau is that the therapeutic value of opium in diabetes may in part be due to a harmful effect of this substance upon the renal epithelium.—*Medical Record.*

ORGANOTHERAPY IN ACROMEGALY WITH PSYCHIC DISTURBANCES.—Patient admitted three times for melancholic depression. Unmistakable signs of acromegaly present. Neither radiography nor examination of ocular fundus showed a tumor of the hypophysis. Symptoms considerably under pituitary extract. A thyroid preparation instead coincided with disappearance of the headache, dizziness, vomiting, and improvement in the mental state. Renewed pituitary treatment caused all these symptoms to reappear, after which they yielded again to thyroid treatment. Salomon (*Société clinique de Médecine mentale, Paris; Presse médicale, December 13, 1913*). *Monthly Cyclopedia and Medical Bulletin.*

**RADIUM.**—At a meeting of the Radium Institute of America, at Columbia University, Feb. 17, papers were read by Prof. George B. Pegram, Prof. William Duane of Harvard, Francis C. Wood, director of cancer research, Columbia University, and others. The principal address was made by Dr. Robert Abbe, of New York, who was among the first investigators to make practical use of radium. He announced a report from Dr. Alexis Carrel, who, at his request, had been making researches at the Rockefeller Institute, which had convinced him that the manner in which he had been applying radium in the treatment of malignant and other growths was wrong. The experiments of Carrel had demonstrated that the gamma rays, which had been depended upon for stopping cellular growth, were almost entirely inert, while the beta rays, which had been considered of little or no value, were extremely active. "Carrel's experiments," said Dr. Abbe, "are only just beginning. . . This new method of studying the isolated rays emitted by radium will end our period of confusion as to the qualities of each ray." Dr. Carrel says he "knows that the action of each ray is different from the others." Under Dr. Carrel's cautious hands and others more work will be needed before we can assign to each division of the isolated rays its exact rôle."—Abstract from Boston Medical and Surgical Journal.

**QUININ FOR RABIES.**—Moon tried quinin on dogs that were inoculated with rabid brain material, and rabies developed. Quinin was then administered internally in doses equivalent to from twelve to eighteen grammes daily for an average man. The medication was pushed to bordering on the toxic. Three untreated animals died. The three treated ones recovered. This method has been employed successfully in one case of a human being.—Abstracted and abbreviated from New York Medical Journal.

The Dominion Medical Monthly has an excellent method of brevity in making abstracts, of which the following is a sample appropriate to our pages:

**THE COMATOSE STATE.**—Grober (Deut. Med. Wochen.)

states the first step should be to avert immediate danger from the heart or respiration. Then seek to discover the cause of the coma. If due to a poison, an antidote, venesection, stomach pump, vomiting, stimulating kidneys and purging as indicated. These failing, then the treatment can only be expectant and symptomatic. Close supervision must be kept upon circulation and respiration. Where there is paralysis from a poison atropine sometimes restores the muscular tone.

**SALUTARY RESULTS OF TYPHOID VACCINATION AT SPRINGFIELD, MARYLAND. HOSPITAL FOR THE INSANE.**—Major Russell's conclusions in his article published in the *Journal of the American Medical Association* are all borne out by the results of our experience at Springfield. The conclusions are:

(1) "That the inoculations are harmless in healthy persons is now well established." In our own cases not a single ill effect has been discovered among the 1,316 inoculated, 890 of whom have been under daily observation by our assistant physicians for eighteen months.

(2) "That it confers almost absolute immunity against infection." Our typhoid rate has been reduced from 1 to 2 per cent. to nothing.

(3) "That it was the cause of immunity of our troops against typhoid fever in the recent Texas maneuvers."

(4) "That the duration of immunity is not yet determined, but it is assuredly two and one-half years, and probably longer." Immunity has lasted among the 890 vaccinated in 1911 for 18 months.

(5) "That only in exceptional instances does its administration cause any appreciable degree of personal discomfort." All our patients were up and ready for breakfast the morning after the inoculations with eight exceptions.

(6) "That it apparently protects against the chronic bacillus carrier and is at present the only known means by which a person can be protected against typhoid under all conditions." All known precautions, as boiling water and milk, disinfecting stools, sterilizing clothing, screening the windows, etc., had been tried, but still a few cases developed each fall.



(7) "That all persons whose professions or duties involve contact with the sick should be immunized." It is a well-established fact that attendants and nurses are more liable to typhoid infection than those engaged in other occupations—eight times as liable, according to the statistics of the Massachusetts General Hospital.

(8) "That the general vaccination of the entire community is feasible and could be done without interfering with the general sanitary improvements, and should be done where the typhoid rate is high." This is a safe and sane proposition. Considering the harmlessness and safety of the use of typhoid vaccines, there is no reason why typhoid vaccination should not be compulsory, just as smallpox vaccination. Certainly every case of typhoid that is prevented lessens the liability of the infection of others, both by the possible contact and the various channels of transmission while sick, as well as the possibility of his becoming a typhoid carrier after convalescence.

(I am indebted to my assistants for carrying out the technique and recording the results from various cases.)

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It has now been one year since the above report was written, during which time 572 additional cases have been inoculated, making a total of 1,888 since the early part of 1911. During the past season we have had three cases of typhoid fever developed in the institution; two of these cases having had typhoid fever before were not inoculated, and the other one had received an inoculation in 1911, but at that time only small doses of typhoid virus were being used.

To summarize, we have had six cases of typhoid fever in the institution during the past three years, two having had typhoid fever before, two had been inoculated in 1911 with the high dilution in use at that time, one case was overlooked while the inoculations were being given and the other, an attendant, refused to be vaccinated.

INFUNDIBULUM is a rapid and powerful galactagogue.—  
Ott.

VENESECTION IN CEREBRAL HEMORRHAGE.—Medical Record. A. MacFarlane extols the value of venesection in cases of apoplexy. If the blood pressure is above 200 mm., he says, this procedure is urgently indicated. It lessens the hemorrhagic effusion and allows coagulation. Prompt blood-letting may save a patient from a permanent hemiplegia, which is worse than death. [L. D. C.] Abstract in Boston Medical and Surgical Journal.

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## CLINICAL PSYCHIATRY.

THE RELATION OF WASSERMAN REACTION TO NEURIATRY is intelligently and instructively discussed in "Brain," November ultimo, showing mostly negative reactions in syphilitic and parasyphilitic sequences on the basis of ninety-one cases examined by Drs. Flider and McIntosh.

COMPULSORY IDEAS AND MANIC-DEPRESSIVE PSYCHOSES.—K. Bonhoeffer (*Monatschrift f. Psychiatrie und Neurologie*, Vol. 33, No. 4.) Jelliffe in *Post-Grad.*

With a brief case history to illustrate his contention, the writer points to the approximation of compulsory ideas to manic-depressive psychosis. Other observers have noted the frequent periodicity of the first of these two affections, and this writer shows that there is no casual relationship between them, but that many things point to a close nosological kinship, chief among them being the occurrence of definite manic manifestations during the course of the condition. Of importance also is the frequency of manic-depressive in the antecedents.

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## NEUROPATHOLOGY.

THE METABOLISM IN EPILEPSY.—The discovery of oxyprotein acids in the normal urine by Bondzynsky and his collaborators and pupils, and the inference that these acids are found in an increased amount in the urine of persons who

have marked disturbances of metabolism, stimulated inquiry along this line by S. Kozlowski, with special reference to epileptics. His results are reported in the *Zeitschrift für klinische Medizin*, Vol. 79, Nos. 3 and 4. He found that oxyprotein acids are in some cases of epilepsy excreted in enormous amounts. At the same time, there is an accompanying increase in the formation of ammonia in the organism. Possibly these chemical changes are more or less directly related to the epileptic attacks. This supposition is strengthened by the fact that epileptic attacks are diminished if meat is withdrawn from the diet and replaced by milk, for this diet diminishes the formation of oxyprotein acids not only in epileptics but also in healthy people. In agreement with these facts one may cite the observation made by Krainski that lithium carbonate as well as borax diminishes the frequency of epileptic seizures. These salts lead to the formation of fixed bases, which combine with the oxyprotein acids. The question now arises whether the periodicity of epileptic attacks can be explained on the supposition of a chemical intoxication of the body. According to the author, it appears that the periodic onset in these attacks can be easily explained on this basis, for it must be considered that in the body of the epileptic the toxic substances in unfolding their activity find a suitable soil in the periodically increased irritability of the nerve centers.—Ed. *New York Med. Rec.*, April 4, 1914.

SPIROCHAETA PALLIDA IN PARESIS.—(Jour. A. M. A.) U. J. Wile, Ann Arbor, Mich., describes the results obtained by Forster and Tomaszewski in using their method of brain puncture to demonstrate the presence of the spirochete in the brains of living paretics. Drilling through the skull under antiseptic conditions, and drawing out with a syringe a small cylinder of brain substance, gray and white matter and more or less fluid from the ventricle. . . . In twenty cases examined the spirochetes were found in the gray matter in eight. This confirms the discovery of Noguchi, so far as the central nervous system is concerned.

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## NEUROSURGERY.

NERVE GRAFTING IN POLIOMYELITIS.—The success which has been obtained in a few instances of nerve grafting has been such as to encourage the belief that great relief could be furnished in confined paralysis from anterior poliomyelitis by this surgical procedure, but clinical evidence so far collected does not substantiate such an opinion. The method may be regarded as still in the experimental stage, and at present it does not offer much hope of relief, and the number of cases to which it is applicable is small.—Bulletin Man. Bd. Hlth., 1912.

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## NEURODIAGNOSIS.

ROBERT'S TEST FOR ALBUMEN.—Dr. John W. Boyce, Pittsburgh, Pa., in *Urologic and Cutaneous Review*, believes:

1st. Robert's test is more convenient, more definite, and more delicate than the more popular tests.

2nd. The cases in which its extreme delicacy will prove a disadvantage do not amount to more than one in 40.

3. Every urine which reacts with Robert's test is worthy of careful microscopical study.

It consists of one part of nitric acid, and from five to eight parts of a saturated solution of magnesium sulphate in distilled water. Such a solution is not corrosive, and a bottle of it with an ordinary stopper may safely be carried in a medicine case. It is of higher specific gravity than nitric acid, and is employed by the contact method even more conveniently. When so employed, the line of contact between urine and reagent is sharp, and no color bands whatever are formed. The presence of the merest trace of albumen shows a sharp white line, such as renders the test an exceedingly definite one.—Medical Council.

THE EYEBALL-HEART REFLEX.—Loeper and Mougeot reported research last year confirming the instructive import of Aschner's reflex, the slowing of the heart-beat when pres-

sure is applied to the eyeballs. In two or three seconds at most, the heart slows up by about 8 beats to the minute, but the former rate returns as soon as the pressure is released. In tabes this reflex seems to be abolished. In some cases the absence of the oculocardiac reflex, as they call it, was the first sign to attract attention to the tabes. The apparently paradoxical tachycardia with abnormally high blood-pressure does not affect this reflex, but this tachycardia warns of impending breakdown of the left heart and calls for digitalis unless it yields to other measures. They explain the mechanism of this tachycardia, saying that the eyeball-heart reflex first threw light on it. They published several communications on the reflex in the *Progrès Médical*, 1913, xli, 211, 663 and 675. With a gastric neurosis this reflex is an indication whether the pneumogastric or the vagus is predominantly involved, and this may prove a guide to treatment. In one of the cases reported the patient had an ulcer on the lesser curvature, and the pulse slowed up by 14 beats on pressure of the eyeballs. Three months after resection of the stomach the pressure cause the pulse to drop from 88 to 62, a loss of 26 beats. The pressure on the eyeballs never seemed to do any harm. It exaggerates bradycardia when it is of nervous origin, and may exaggerate arrhythmia. With rudimentary exophthalmic goiter and very emotional subjects, with a tendency to "hot flashes" and profuse sweating, pressure on the eyeballs is liable to accelerate the pulse.—*Jour. A. M. A.*, Feb. 14, 1914.

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CHAS. H. HUGHES, M. D., Editor and Publisher.

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## EDITORIAL.

THE TIME FACTOR IN MEDICAL EDUCATION.—The complexity of studies and the vast amount of increasing knowledge (almost paralyzing to contemplate) necessary for the medical student to acquire and the limited time he can give to study, if he would begin medical practice as his livelihood occupation, make it necessary that we should consider the time factor at the average student's command in providing for his education in medical essentials.

In order to meet his training needs and the time he can give in preparation for practice before getting into practice, it looks as though we should have a different arrangement from the proposed high school graduation and two-year literary and scientific university course added to the four-year medical term and one additional clinical



year in hospital experience, before sending him out to practice.

A MEDICAL UNIVERSITY.—The substitution under the circumstances of an exclusive medical university, where all the essential knowledge would be condensed and boiled down, by expert teaching, and adapted to the needs of the doctor in embryo were demanded, such as physics, physiology, biochemistry, philological Greek and Latin, pathology (alcoloidal, galemeal) scrotherapy could be taught in more condensed form and shorter time than are now taught.

The essentials of the specialties should be practically condensed and imparted in a briefer and less paralyzing way than they are now, with so many score professors, for the student who contemplates a general practice only. For the student who expects to devote his life time to laboratory work—to become an expert chemist, biologist, pathologist or a medico-legal court advisor or a teacher of a department, or course in the great and greatly endowed universities would be advisable, but not necessarily for all medical students. The subject demands considerate thought.

But for the student intending to become a family advisor and general physician and not expecting to make specializing his life work or to be supremely thorough beyond diagnosis and treatment and having of necessity to to get at his life work by the time he has reached early manhood—say at twenty-one or twenty-three years of age, his instruction should be concentrated into an earlier and shorter time limit than many of the advocates of the so-called higher education demand for all.

The doctor's education should of course be thorough, both preliminary and special. It should be boiled down to the practical and essential. The knowledge of the languages should be taught with his special needs in view (as a doctor only, not as a literateur), mostly philological and by the natural method, to aid in the full, complete and clarified comprehension of technical terms. He should be taught Greek and Latin, for instance, mostly in their

medical aspects—Hippocrates and Galen as text books. Xenophon's *Anabasis* or Caesar's *Commentaries*, etc., might be set aside like Ovid's *metamorphosis*, etc., for a convenient season, when the leisure for them shall come to the student later, while he sits in his office waiting for practice to come to him. He will generally get the time while he waits.

Let us in our teaching consider the student, his time, his pecuniary means, his health and his life expectation. But at the same time inspire him with a love of general and classic culture as well as life saving, disease relieving, facts from every source of knowledge.

FATAL THANATOPHOBIA.—Last year a record of a case of this kind came over the wires of the "Associated Press" from Wabash, Indiana, Dec. 18th. As the result of fear occasioned by the death of two men at the County Infirmary, where he is an inmate, Bert Jackson, 87 years old, dropped dead.

Jackson has long had a mortal fear of the dead, and following the demise of any person at the place, went in hiding, where he remained until after the funeral, doing without food.

Within two hours of each other on the above date, two deaths occurred at the institution, and the shock was so great that Jackson soon afterward expired. Psychic phobia brain-heart shock paralysis is more common than gets of record. It is too often designated as simply heart disease.

Much of the popularly so-called sudden heart disease is brain-shock paralysis—the pre mortem improvement of which is the therapeutically induced cerebro-neural impaired brain vagus nerve tone in which the brain and heart are chiefly at fault. The stable neurone is the thing here, as elsewhere, in too many cases of so-called heart disease as the post mortem normal heart too frequently shows—simply heart disease, is misleading.

SIR BATTY TUKE.—This eminent psychiatrist, who died last October in Edinburgh, was renowned at his English home and abroad, as well as among us here in North America and Canada. He lived to the age of eighty-three years.

T. S. C., which letters stand for our eminent college of the medi-psychological association, gives the distinguished deceased a well-merited eulogy in the *Journal of Mental Science*, including also an excellent estimate of the dead doctor's charm of character and wealth of ability in his profession. Dr. Clouston tells us "Dr. Tuke was the first to describe the course of pigmentary deposits in the vessels and cells of the cerebral cortex. He was the first to describe the great importance of the intra-cranial lymphatic system as an element in the pathological process in some forms of insanity. He described a new appearance which called 'miliary sclerosis,' which is now known by the name of 'senile plaques,' and certain other degenerations of the cerebral cells. He was one of the early observers of the clinical symptoms and pathological appearances in syphilitic arteries, as also of the increased blood pressure in general paralysis. In his Morrison lectures he described 'The Insanity of Over Exertion of the Brain.' He wrote the articles 'Insanity' and 'Hysteria' in the last edition of the *Encyclopaedia Britannica*. He advocated strongly an extension of the open door methods of treating patients in asylums, extending the ideas of the amount of freedom that might be given to certain patients. He believed strongly in a scientific study of insanity. He read at the Royal Society of Edinburgh a paper on the 'Constitution of the Pia-mater,' maintaining that the pia-arachnoid was one membrane, the arachnoid being simply the outer layer of the pia. This view has since been generally adopted. He contended that the vessels course between the two layers, instead of the older view that they ran in its inner layer.

"He was in short a faithful and efficient wheel-horse in the advancing chariot of modern clinical and research psychiatry.

"In his long and useful life he taught medicine in the Royal College's School of Medicine and was for a period of three years its President, resigning then because of failing health. He was a member of Parliament for ten years, and knighted because of his many gifts of mind and service in his profession and for the advancement of science in connection therewith. He was a member of the British Medico Psychological Association and honorary member of other similar foreign societies. He did much to elucidate the subject of puerperal insanity."

BAILING HOMICIDAL LUNATICS A JUDICIAL BLUNDER.—An insane person who has committed murder under delusion of Deity inspired impulse, or such delusion possessed individual as the religious paranoiac, George Bernhardt, of West Orange, New Jersey, who threatened the life of President Wilson and the destruction of Washington if the President did not bring about better times, signing his letter as God's Son, is a case in point. This man had a murderous record.

He had been in the restaurant business and killed his partner in an altercation about a woman. On the insanity plea he was committed to the Philadelphia Hospital. There he had several violent attacks and gave the physicians and attendants much trouble.

On Sept. 8, 1910, Bernhardt and another inmate attacked and killed a fellow patient. They were tried and acquitted on the ground of insanity, and were returned to the criminal ward in the hospital by Judge Ferguson.

At his second trial, Bernhardt rehearsed the shooting of his business partner in 1900, and told the jury that "it was the spirit of God that was upon him and caused him to commit the murder."

In addressing the jury, Bernhardt said he had been visited by the spirit of God, and anything he did or might do was under the direction of God, is right. He said he killed this man by divine direction and could not be punished for it.

Bernhardt escaped from the hospital in February, 1911, and was caught in the home of relatives in West Orange three weeks later, but was not returned to the hospital.

This was a grave error on the part of the authorities or guardian, and always will be in like cases. This sort of murderously delusioned man is dangerous. It is a wrong and risk to the President for him to be at large and to the community, even though he is ridiculously bonded in the paltry sum of one thousand dollars, or in any sum against yielding to a brain disease impaired delusion. A bonded lunatic, dominated under such a delusion, will break any bond whenever the overpowering delusion of God's inspiration may come uppermost in his mind, and he might become again delusionally crime impelled from his Heaven inspired delusion.

Bonding deluded lunatics to keep the peace and refrain from diseased brain impulses is not judicial. As well bond an epileptic against having a convulsion, and many insane murderers are in fact epileptic homicides.

PURITY BECOMING CONTAGIOUS. After the pure food law, comes now the Laundry Men's Association demanding of Congress a pure fabric law, and in their resolution which resulted in the Linquist Pure Fabric Bill, H. R. 10080, which we cordially endorse, this association might have incorporated a law for pure antiseptic laundries.

Now if we can only get a pure and clean congressman law that would accomplish the moral and financial purification of the members of that distinguished body of too many misrepresentatives, patriotic citizens might feel that the country's future would be safe.

Oh, that some sanitary genius would devise an effective moral antiseptic that would cleanse and keep clean official Washington.

THE FORTY-THIRD ANNUAL MEETING OF THE AMERICAN SOCIETY FOR THE STUDY OF ALCOHOL and Other Narcotics, held

at Philadelphia in the early days of last December, was an exceedingly interesting and enlightening one. The destructive and fatal effects of this baneful destroying beverage were shown as well as its possible good in medicinally measured dosage in emergencies of medical practice.

The best and the predominating worst of this toxic destroying foe of our race were shown from sources of wise research. Resources and methods for the salvation of its victims by men of experience and acknowledged good medical observation and judgment in that line of research philanthropy were well portrayed.

Almost every aspect of this subject known to scientific medicine was presented at this meeting, except the moral exhortation phase of the old platform lecturer of the past, before the light of science fell so convincingly upon the health and life-damaging power of this baneful beverage of so-called enlightened humanity.

The interesting papers presented will appear during the year in that valuable magazine—the *Journal of Inebriety*, published at Hartford, Conn., by Dr. T. D. Crothers.

OUR TARDY APPEARANCE this issue is due to a fire which almost totally destroyed the printing establishment of Hughes & Company on February 21st, putting them almost out of business temporarily and as this concern has published the *Alienist and Neurologist* for the past twenty years, the editor was disposed to await their re-establishment for the issuing of the present number, rather than to seek new publishers temporarily. Their service in the past has been so satisfactory that we cordially recommend them to our readers who may be contemplating the issue of books, hospital reports, etc., assuring them the same careful attention that has been given to this *Journal*.

PHYSICIANS UNAPPRECIATED.—The distinguished physicians and surgeons, who by their discoveries and their self-sacrifice, have done more than all others to mitigate the physical miseries of humanity, are less recognized and remem-



bered, I have often thought, than any other benefactors of the race. Their names may have an unpleasant association with a disease or an operation, but they themselves pass out of sight, although the lives they led and the work they did, and their observation of human nature, are more interesting than those of many of the men about whom volumes have been written.—From Henry Cabot Lodge, A. M. A. Journal.

This is largely due to the out of sight and not to be heard policy of the profession. The medical profession is too modest and retiring before the world as to its meritorious deeds, and Professor Lodge deserves its thanks for this appreciation.

OPIMUM IS A DISEASE DEVELOPING DRUG.—Only incidentally habit forming through the disease it causes. Opium fiend is a cruel misnomer. The term opium habit is a mistake. Morphine taking develops relaxed and painful states of the nervous enterical and visceral systems when the opiate is long withdrawn, that are hard to endure, and can only be appeased by repetition of the drug or by other treatment. Dr. C. H. Bartlett in Vol. xxxv, No. 1, is right in saying the hospital No. 1 at Fulton, Mo.

EUGENICS POETICALLY CONSIDERED.—Our humorous and called habit is not a habit. The so-called habit consists in taking opium or its salts again and again to cover up and relieve the distress sequent to previously repeated doses and the harm it has done to the organism. It is cruel to call these unfortunate slaves of this pernicious drug fiends, because once enslaved, they can not do without being medically treated and cared for.

THE ALCOHOLIC PSYCHOSIS.—That an individual with an alcoholic psychosis is not fitted for a soldier's life, at any rate, in war time, is self-evident, is the opinion of one of our exchanges, and Secretary of the Navy Daniels is right, for Navy officers and men all the time. Sobriety only should guide our ship of state at all times, and under all circumstances, and

especially now. If the United States had now to deal with a clear, level-headed, humane-natured man acting as Mexican dictator, we might have an honorable peace with Mexico. After Huerta, who and what in Mexico?

DR. M. O. BIGGS is the new Superintendent of State Hospital, Dr. Richard Dewey, has blossomed out in January as an eugenic poet, as shown by the Milwaukee Sentinel of February 8th, thus:

### THE WISCONSIN "EUGENIC" MARRIAGE LAW.

The following is a production read at a complimentary dinner recently given to Dr. H. M. Brown of Milwaukee:

A POEM BY "EUGENE."

Can be sung (perhaps) to the air, "A grasshopper sat upon  
a sweet potato vine;

---

Along come a turkey gobbler creepin' up behind."

A bridegroom was a sittin' on the curb before a church,

He'd been left there in the lurch,

He had fallen from his "perch."

His promised bride had left him, she had "shook" him cruellee

He was shy of a "certificate eugenic," don't you see?

With his marriage proposition *she* would not at all agree,

Tho' he went down on his knee,

Tho' he sang "Oh, promise me,"

Tho' he'd spent of hard earned dollars something more than  
three times three,

A "certificate eugenic" neither love nor "mon" would get.

Heart and purse were "broke," "you bet."

The doctors were most kind,

But they wouldn't change their mind.

They wouldn't take a chance of a suit for perjuree,

Tho' they seemed unto that bridegroom "D. blank D," "per-  
nickitee."

This bridegroom "non-eugenic," he was "up against it" hard.

He might as well hang up his lute, he could get no lady  
"pard."

This tragidee is "something fierce,"  
 All tender hearts 'twill sharply pierce.  
 For all luckless "Wisconsinners" we may feel much sym-  
 pathee.

But it's right, we all agree,  
 To protect the familiee  
 And safeguard posteritee.

The thing about this law that fails most dismalee—

IT DEMANDS OF THE M. D. AN IMPOSSIBILITEE!

If he "try for to" comply and his honest efforts fail,  
 First thing he knows, a "copper" may be "campin' on his trail"  
 And "pinch" him in his grief,  
 Like any common thief,  
 And lug him off to jail.

Another funny thing is the clause about your age.

If you're 20, you will not do. It takes "30" for a sage.

Finalee, the poor male biped gets "his'n," "come" or "go."

He has to *do* just so,

And he has to *be* just so.

But a flirty little female can do just as she's a mind,

There'll be no bloomin' "copper" creepin' up on her behind.

Creepin' up on her behind.

And now to brother Horace Brown, you may remove your hat.

Irreverently but honestly he remarked "requite" *scat!*

Now let us all go straight to work for *right* eugenic laws.

The "idee," it is a good one; let's eliminate the flaws!

—R. D.

POLITICAL PSYCHIATRY.—Were De Groot, who pronounced the care of the human mind the "noblest branch of medicine," with us today, and could be among our adopted patriot citizens as most of their kind have proved to be in our country he would probably be saying the same of psychiatry in our politics. Right quality tone of minds is what this country needs. We need eugenic politics and politicians.

TWO OF THE OLDEST PHYSICIANS OF ST. LOUIS, Dr. Geo. F. Dudley, aged seventy-nine, and Dr. Wm. Webb, eighty, have died this year. The former was the first Health Commissioner of St. Louis. Dr. Webb served as Confederate Surgeon in the Civil War. Both were members of the St. Louis Medical Society, the last having been made an honorary member.

THE AMERICAN MEDICAL ASSOCIATION FOR 1914 will meet at Atlantic City June 22, 23, et seq.

DIPLOMA IN PSYCHIATRY.—“The necessity of keeping abreast of modern discoveries in psychiatry has now become so important that it will certainly soon be indispensable that assistant medical officers entering and rising in the service should take out special courses in the scientific branches of their work at one or other university, and it is suggested that study leave should be granted to assistant medical officers to enable them to do this, and to obtain one of the diplomas in psychiatry now granted by several universities.”—The Hospital, London.

A good plan for America.

THE BRAIN OF DR. ALPHONSE BERTILLON, recently deceased, weighed 1,525 grams, or 165 grams above the average, notwithstanding the doctor had suffered from anemia for some time before death, and brain shrinkage was found at post mortem.

THE PLEDGE OF THE SURGEONS.—The American College of Surgeons signalizes the beginning of its worthy existence by the following propriety resolutions.—Long may this worthy body live to practice them.

To cut out psychic cruelty is quite as worthy of this worthy craft and as appropriate as to excise physical morbidity:

“To avoid the sins of selfishness. To shun unwarranted publicity, dishonest money seeking and commercialism as dis-

graceful to our profession. To refuse all secret money trades with consultants and practitioners. To teach the patient his financial duty to the physician and to urge the practitioner to obtain his reward from the patient openly."

THE GREATEST ASSET of any nation is the health and efficiency of its people.—The Training School Bulletin.

True! and this useful bulletin and this magazine and eugenics generally will show the way to increase the value of this great national human asset.

MORE PROGRESS IN CLINICAL PSYCHIATRY.—The Psychopathic Hospital at the University of Michigan conducts a course of special instruction for physicians engaged in psychiatric work. This and Brill's new book are interesting evidences.

IF THIS MAGAZINE PLEASES you and has helped you in the practice of medicine or surgery, tell your friends about it. If it has displeased you or disappointed you at any time during its long life, tell us about it. Its aim has been and is always to help the physician and surgeon in the psychiatry and neuriatry or the psycho-neurotherapy of all disease in its practical aspects. All disease has psychic and nervous features to be considered in medical practice.

DR. W. B. KERN, of Hastings, Nebraska, for twelve years past superintendent of the Nebraska State Hospital for Insane, Ingleside, Hastings, and closely identified with the growth and development of this important and modern institution almost from its incipency, has retired from hospital service and located in Exchange Bldg., Los Angeles, limiting his practice and work to nervous and mental disease.

THE NEURONE WASTAGE OF PERVERTED AND DISEASED SEXUALITY.—Its effect on personal and national sthenosity is thus suggestively broached in Hearst's Magazine, under the

caption of the social measure of Japan, discussing Marian Cox's man-made women of Japan and the Yoshiwara of that country, "not tolerable among us," and this is its wise and portentous warning conclusion of this matter:

"The ultimate conquering power of any race is in proportion to the normal physical relations of men to women, and to the idealization and self-restraint displayed relative to the sex question."

And this nation, unlike the unfortunate nations that have gone before us and are mostly off the stage of mortal action, had better watch out.

HARM TO THE HOMOSEXUAL.—Medical and Judicial—to these unfortunately endowed and perverted in sexual love and impulse, "The social and legal penalties attached to this reversal of the normal sexual life are very severe and unjust in a large proportion of cases," as Havelock Ellis has lately stated, in a communication to the Medical Review of Reviews concerning an article of the same tenor by Mr. Russell Hertz. Dr. Hughes quite agrees from personal observation with both of these gentlemen as to the "extreme ignorance of homosexuality which prevails even among the medical profession" and as to the too often unjust estimate and treatment of these unfortunates by people, physicians and judges and juries. Some of these perverts have otherwise displayed gentle traits and ability, lamenting their "contrary sexual" instinct.

And this considerate view was that also of this distinguished author, who so early and so correctly described and considered it.

ANOTHER HONOR TO GORGAS.—The medical profession of London gave a dinner last March to Brigadier General William C. Gorgas, Surgeon General of the United States Army, as a tribute to his splendid work as chief of the sanitary department at Panama. General Gorgas also received the Oxford degree of Doctor of Science.

At last the medical profession is coming to be appre-



ciated. We have seen the time when the rank and service of a surgeon were estimated, not so much above the rank of a sergeant, and even when the second mess was proposed for Navy surgeons.

The honor and glory of De Lesseps and France might have been the same as that of Goethals and the United States had the value of medical service in the Canal Zone been appreciated and emulated. The more sanitary science and the medical corps are appreciated in the service, the better for both army and navy.

"Wise physicians skilled our wounds to prevent and heal

Are more than armies to the public weal,"

Even in the army and navy themselves for the army's and navy's weal.

We have seen little martinet captains and lieutenants in transient command of posts, commanding as to purely medical matters connected with post hospitals. That time now has passed with us, for it was in civil war days, and gone for the good of the service.

AN EUGENIC CONVOCATION.—Several hundred prominent scientific and philanthropic eugenists assembled at Battle Creek, January 8th, 1912, to consider race deterioration and methods of remedy of the same.

Some views of the movement are here abridged:

"It will be no easy task to improve the race to the point where there will be no dependent children, but the elimination of the dependent child will be one of the best indices of the superiority of our national stock."—Dr. Gertrude E. Hall, New York State Board of Charities.

"I believe that a great deal can be done by publication of facts as to the physiological effects of alcohol, in the way of inducing educated and intelligent people to conserve their health by limiting the use of alcohol or giving it up altogether."—Henry Smith Williams, Author.

"Eugenics does not eliminate romance. We eugenists believe romance should be retained. Through the past it has

proved a good thing.—Prof. Roswell H. Johnson, University of Pittsburgh.

"In order that the race may survive it will apparently be necessary to make a eugenic selection of healthy mothers and to provide that the cost of bearing and rearing children shall be equally shared by all."—Prof. J. McKen Cattell, editor *Popular Science Monthly*.

"The boys are learning that they have a calling just as sacred as the call to motherhood and that is the call to fatherhood."—The Very Reverend (Dean) Walter Taylor Sumner of Chicago.

"The negro in the south, with all his weaknesses and handicaps, is not yet in any large measure, in the ditch."—Booker T. Washington, principal of Tuskegee Institute.

"We must cultivate pure blood, instead of blue blood if we would develop a race of human thoroughbreds."—Dr. J. H. Kellogg, Superintendent Battle Creek Sanitarium.

THE HIGHEST AND BROADEST EDUCATION possible and practicable to attain is not too great an achievement for physicians. Whosoever enters the medical profession should enter therein with ambition, determination and hope to attain this desirable end, sooner or later in his career, for his own happy success and the welfare of mankind. Fortunately through beneficent endowment by certain of our great philanthropists of our great universities, aspiring students of the sciences collateral to medical teaching, the utmost limit of achievement is now a possibility for the training of great medical experts, and even the smaller and less favored medical schools no longer assume to teach medicine without adequate laboratory, anatomical, chemical and clinical instruction.

Great praise is due to our predecessors in medicine for their efforts and devotion, not only for the honest but misnamed commercial schools which they founded and maintained from their personal purses often, while neither the public nor legislatures took a sustaining interest in them, but

for impressing the extremely wealthy with the importance of high-grade medical instruction to the extent that the fruition of their labor has become manifest in our great million and multimillion endowed universities, giving to medical science and art all of nature's present-day laboratory research, resource and hospital and clinical help.

HOLMES ON THE ECLECTICISM OF REGULAR MEDICINE.—The Critic and Guide thus quotes the eminent discoverer of the communicability of puerperal fever, anatomist and literary writer, whose name should never perish from the annals of literature and medical science of America:

"Medicine, sometimes impertinently, often ignorantly, often carelessly, called 'allopathy,' appropriates everything from every source that can be of the slightest use to anybody who is ailing in any way, or likely to be ailing from any cause. It learned from a monk how to use antimony, from a jesuit how to cure agues, from a friar how to cut for stone, from a soldier how to treat gout, from a sailor how to keep off scurvy, from a postmaster how to sound the Eustachian tube, from a dairy maid how to prevent smallpox, and from an old market-woman how to catch the itch insect. It borrowed acupuncture from the Japanese, and was taught the use of lobelia by the American savage. It stands ready to-day to accept anything from any theorist, from any empiric who can make out a good case for his discovery or his remedy."

PSYCHIATRY IN SURGERY.—When this Magazine started in 1880 on its successful career, it announced its purpose to disseminate psychiatry and neuriatry in the profession generally. Since then remarkable progress in appreciation of states of the mind and allied nervous system in disease have become manifest, a late and forceful illustration appearing in such communications as the following, which that excellent periodical, the American Journal of Surgery, abstracts from an equally meritorious source in surgery, as follows:

## THE PSYCHIC STATE OF THE SURGICAL PATIENT.

There is an interesting fact concerning the psychic state of the patient at the time of the operation. If the patient is in grave doubt as to whether or not he can survive the operation; if he lacks confidence in the hospital or in the surgeon, the patient has what in psychology is known as a low threshold, and if he goes under the anesthetic in this state, the effect of any physical injury will be augmented and throughout the entire anesthesia there is manifested the evidence of fear in the respiration and the pulse, and in the way in which he reacts to the anesthetic and the trauma of operation. These patients take the operation poorly. It is as though the patient went under the operation with his motor set at high speed, so that the energy of the body is consumed more rapidly, and hence the exhaustion or shock is increased.

## ANOCI ASSOCIATION IN OPERATIONS.

The brain being a tissue of surpassing delicacy, is damaged with wonderful facility by injury and by fear and worry. The good risk patient when operated by almost any method, by almost any surgeon of experience, will recover from his operation, but the delicate nervous organization is only too frequently shattered by the experience. We now understand why. Though the principle is clear, the technique demands to a certain extent a re-education of the surgeon; it demands a certain amount of detail and precision; it demands for more consideration for the patient; but through anoci the destiny of a patient is to a greater degree placed under the control of the surgeon, who through it is enabled to reduce both the morbidity and the mortality.—George W. Crile in *The Southern Medical Journal*.

This evidence of progress in appreciation of psychiatry in surgical practice is gratifying. Operative surgery is coming to a right consideration of the entire patient, including mind and nervous system as well as the part operable, both pre and post operative.

PSYCHIATRY AND EUGENICS IN RELATION TO MILITARY SERVICE FITNESS.—A nation's endurance and greatness depends upon the psychial and sanitary fitness of its managers and men. Apropos to this proportion the New York Medical Record editorially discusses the proposition presented by Dr. W. A. White before the United States Naval War College that psychiatry and military service were intimately related and contends against the enlistment of defectives and the average "ne'er do well," contending also against hereditary defectives prone to break down under the stress of war and other brain strain, including the alcoholic and syphilitic psychoses, etc. "Persons with these tendencies," says Editor Stedman, "are prone to break down in war time than in the time of peace, and therefore are not fitted to be soldiers." Dr. Stedman continues: "A knowledge of psychiatry would come in good stead to eliminate these unfit from the military standpoint, but White shows from the experience gained in the Russo-Japanese war that the syphilitic psychosis is likewise of the first importance. At the Russian Psychiatric Hospital at Harbin, during the war, the percentage of paresis among those brought back from the front was 5.6."

All of which is true and not malapropos to the Secretary of the Navy's interdict abolishing the wine mess from the Navy. Uncle Sam should take no part in the making of dipsomaniac officers or men and then in disgrace dismissing the pitiable creatures of his own making. Let not the Government manufacture its unwary officers who fear not seductive drink, or men, into final inebriates.

AN INEBRIATE HOSPITAL AND REFORMATORY FOR ST. LOUIS is proposed in the new City Charter now being prepared for popular adoption.

It is certainly a necessity for this time and place. It is as badly needed as an Insane Asylum, Free Bridge and City Legislature annex. An amnesic dementia as to the public welfare appears to have seized upon our city government.



A MONTHLY COURSE IN PSYCHIATRY.—Physicians' work will be given at the Psychopathic Hospital of the University of Michigan, Ann Arbor, from March 30 to April 25, 1914, including clinical lectures, conferences, laboratory studies and demonstrations, for a fee of twenty-five dollars. The number of students will be limited to fifteen. Address Dr. Alfred M. Barrett, Director of the Psychopathic Hospital, Ann Arbor, Mich.

ANY DEFINITION OF INSANITY NOT CONCEIVED ON THE BASIS OF DISEASE IS A MISCONCEPTION OF THE SUBJECT.—The fact that insanity is mental disease, makes it a subject for medical observation, judgment and treatment.

Only a disease perverted mind in which a primarily or secondarily disease involved brain perverts the mental expression or personal conduct or distorts action, speech or thought as compared with the natural character, presents the picture of true insanity. Absurd beliefs or bizarre conduct not caused by functional or organic brain and mind disturbing disease, by change in the brain's blood or its blood movement or in the brain structure or by reflex brain impression, must be otherwise explained than through insanity. Mere peculiar conduct by imitation or example, illogical persuasion, wrong leadership, erroneous beliefs are not insanity. Blood poisons or changes in blood volume or composition changed in the blood, such as hyperemia, anemia, alcoholism, etc., may produce insane brain action in any of its varied forms.

THE FIRST TWO ARTICLES IN NORTHWESTERN MEDICINE for May are on two of the most up-to-date subjects in medical advance, viz., "Recoveries of the Insane" and the "Psychic Mind in Medicine." The best and most advanced minds in medicine are bringing psychiatry to the front.

"THE MODERN TREATMENT OF INEBRIETY" is the subject of a paper by Irwin H. Neff, M. D., Foxborough, Mass., to be read before the Medicopsychological Association May 28th, of which the following is an abstract:

The modern conception of habitual drunkenness demands



that there be developed a practical method of handling such cases. Any system proposed which is put into practice must be sufficiently elastic so as to permit of its universal adoption. State care is preferable, and a centralization of authority is essential. The carrying out of the purposes of any plan should be authorized and controlled by the medical profession. All the details of such a plan, both preventive and curative, should be censored by medical experts before submission to the public for approval and adoption. Any institution built for the care and treatment of drunkenness should be constructed so as to meet the selective requirements of these people; it should also allow for regional departments directed by the parent institution, which should be considered the administrative head. A description of the Massachusetts plan for the care, treatment and study of drunkenness, its scope, control or administration and co-operation with allied interests.

This is especially appropriate for St. Louis readers, since such a much-needed institution is contemplated for this city, too long neglected in this regard.

AMERICAN MEDICAL EDITORS' ASSOCIATION.—On June 22nd, 9 a. m., the above-mentioned Association will meet at the Marlborough-Blenheim Hotel, Atlantic City, N. J., under the presidency of Dr. E. A. VanderVeer, of Albany, N. Y. An unusually attractive programme is being prepared.

CASE AND COMMENT.—The Lawyers' Magazine, conducted by The Lawyers' Co-operative Publishing Company, Rochester, New York, is a Magazine of merit and special value for attorneys, jurists and physicians, a good supplement in its medico-legal aspects for the physician who may be called into court as a medical expert, and this may happen any time in the doctor's career. We acknowledge a cordial invitation to contribute to this much-needed Magazine, to which we have thus far been unable to accede, because of pressing demands connected with our own Magazine and the unexpected reduction of our working staff.

PSYCHOLOGY AND MEDICINE BASIS OF CHILDREN'S BUREAU.  
—Suggested amendment to the "Legislative Bill" (H. R. 15,279), as reported to the Senate May 15, 1914.

On page 147, under "Children's Bureau," in line 3, after the figures, "\$25,640," insert the following words:

provided that the chief and assistant chief shall be experts in child study, and provided further, that the supervisory officers and all other persons now or hereafter employed, in the bureau, in investigations of infant mortality, diseases of children and similar subjects of a medical nature, shall have had a medical training.

THE UNDERSIGNED announce that they have formed a partnership for the general practice of law, under the firm name of Gubernator, Connell & Jones, with offices at 902 Pierce Building, St. Louis, Mo. Phone, Olive 622.

E. S. GUBERNATOR  
JAMES J. CONNELL  
DOUGLAS H. JONES

May 1, 1914.

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## CORRESPONDENCE

Wauwatosa, Wis., April 23, 1914.

My Dear Doctor Hughes:

Believing that an amende is due Dr. Adolph Meyer, Director of the Henry Phipps Psychiatric Clinic of Johns-Hopkins Hospital, Baltimore, on account of failure on my part to mention his services in a recent paper,<sup>1</sup> I take this occasion to state the circumstances to the confreres to whom the reprint of the paper was sent, members of the American Medico-Psychological and American Neurological Associations.

In the paper referred to I spoke of the "Ward for Nervous and Insane Patients," "Pavilion F," at the Albany Hospital, established in 1902, as one of the first steps toward a "Psychiatric Clinic" later to be evolved. I should have added that it was in the same year that Dr. Adolf Meyer, having been appointed Director of the Pathological Institute for the New York State Hospitals, inaugurated an advance of the greatest importance in the same direction. A friend who noticed the omission in my paper and kindly mentioned it to me, states that in his opinion Dr. Meyer's signal accomplishments at the hospitals on Wards Island led to Mr. Phipps' munificent gift to Johns-Hopkins University and Hospital and to Dr. Meyer's own promotion to a field of higher activity.

My inadvertence resulted from the fact that my paper had reference mainly to the Middle West and was prepared under great pressure for time.

I make the above statement more on my own account than that of Dr. Meyer. The matter can be of little consequence to him, but I am unwilling to rest a moment even under the appearance of injustice to another.

I remarked in closing my paper that it was "cursory and imperfect." It was delivered at a semi-popular meeting attended by many of the laity where much technical statement would not be appreciated.

While making the above correction, I wish to supply one other omission in my paper. I did not include in my sketch an additional fact worthy of mention in connection with "Evolution in State Hospitals;" that is the development of the "Colony" as an outgrowth of public hospitals for the insane. This addition to such hospitals was first adequately described by Dr. Henry M. Hurd in 1887<sup>2</sup> and carried out with decided success at Kalamazoo, Michigan, and later at various other institutions.

Yours truly,

RICHARD DEWEY.

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1. Forty Years' Evolution in Construction and Administration of State Hospitals in the Middle West. Reprinted from Illinois Medical Journal, issue of March, 1914.

2. The Colony System as Proposed in Michigan. By Henry M. Hurd, Pontiac, Michigan, Proceedings Conference of Charities, Omaha, 1887.

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## REVIEWS, BOOK NOTICES, REPRINTS, ETC.

FORTY YEARS' EVOLUTION IN CONSTRUCTION AND ADMINISTRATION OF STATE HOSPITALS IN THE MIDDLE WEST.—Richard Dewey, M. D., Wauwatosa, Wis. Reprinted from the Illinois Medical Journal, issue of March, 1914.

Dr. Dewey's extensive clinical and long literary familiarity with this subject justifies the enlightening brochure before us. It should be in the hands of all alienists in and practical study.

THE REGISTRATION OF VITAL STATISTICS AND GOOD BUSINESS.—Address delivered before the Annual Conference of Health Officers of the State of Indiana, Indianapolis, May 13, 1913, by Louis I. Dublin, Ph. D., Statistician, Metropolitan Life Ins. Co., New York.

The most important thing insurance companies can do in regard to death certificates and vital statistics generally is to provide a fee to medical men for the time spent by them in writing and attesting death certificates, now gratuitously.

Parsimony in this regard too often gets but half-hearted, inadequate service.

BILL TO REPEAL THE HETCH HETCHY GRANT, and remarks of the Honorable John D. Works of California in the Senate of the United States.

From the Senator's speech it appears reasonable that this bill should be considered. Yosemite ought not to be so marred except under imperative necessity, nor the riparian rights of that valley's population taken away without just cause.

TREATMENT OF NEURASTHENIA BY TEACHING BRAIN CONTROL. By Dr. Roger Vittoz. Translated by H. B. Brooke.

Longmans, Green & Co., 39 Paternoster Row. London, New York, Bombay and Calcutta. 1911. All rights reserved.

Physicians, especially alienists and neurologists, will read this book with interest, surprise and profit. But the neurasthenic brain, i. e., the cerebro-psychasthenic brain needs nutritional and chemical as well as volitional control, but self-volitional control by a crippled will power due to brain debility and impairment in its volitional inhibitory centers is one of chemic restraint and repair largely, but a normal, healthy brain may help some, as the surgeon may aid in moving a sprained joint which the patient cannot himself unaided move. But not much.

The author offers a series of exercises for teaching brain control, interesting and valuable, especially for the convalescent condition of neurasthenia, but the best of all treatments is rest of the exhausted organism through sleep, mild, untaxing diversion and easily appropriated and adequate nutrition.

The book is well worth the consideration of the thoughtful therapist of neurasthenia.

SCHOOL FOR HEALTH OFFICERS.—Harvard University and Massachusetts Institute of Technology. Catalogue and Announcement.

A good move with a good object, from a good source of capability for right instruction. As philanthropic sanitary science promotion advances, the welfare of society is enhanced.

ACTES DU CONGRÈS PÉNITENTIAIRE INTERNATIONAL de Washington, October, 1910. Publiés a la demande de la Commission Pénitentiaire Internationale par le Dr. Louis C. Guillaume et le Dr. Eugène Borel. Procès-Verbaux des Séances et Voyage d'Etudes, etc. Groningen. Bureau de la Commission Pénitentiaire Internationale. 1913. En commis-

This interesting and important Congress held at the American national capital is the eighth, though such a Congress was first proposed for the civilized nations by the United



States Government, and this is the first of these important Congresses held in in the United States. Attorney General Wickersham welcomed the delegates in a most felicitious speech, in the name of the American Government. Attorney General Wickersham was proclaimed an honorary president, and Dr. Chas. Richmond, president of the International Penitentiary Commission, was proclaimed president, succeeding his honored and regretted predecessor at the Budapest Congress, Dr. Barrows.

Many interesting subjects germane to such a convocation were profitably discussed, the tenor of which was to advance humanity and right methods of humane penology. But for report of which we regret that we have not space *in extenso*. The disposition of the death penalty was prominent in the discussions.

THE MONTHLY CYCLOPEDIA AND MEDICAL BULLETIN makes a special feature of the Internal Secretions, giving original articles entire and summaries of others on these subjects, under the editorial management of Doctor Charles E. de M. Sajons. Readers of this Magazine should read this department. We greatly regret that we have to limit our selections therefrom for want of space, as this department should constitute companion reading to the *Alienist and Neurologist*. The F. A. Davis Co. are the publishers, 1914 Cherry Str., Philadelphia.

THE INTERVERTEBRAL FORAMEN.—An Atlas and Histologic Description of the Intervertebral Foramen and Its Adjacent Parts. By Harold Swanberg, member of the American Association for the Advancement of Science. With an Introductory Note by Harris E. Santee, A. M., Ph. D., M. D.

INTRAPERITONEAL INJECTIONS OF OZONE IN ANIMALS FOLLOWING INJECTIONS WITH VIRULENT BACTERIA. By S. E. Finch, M. D. From the New York Medical Journal.

THE ACTION OF OXYGEN, HYDROGEN DIOXIDE, AND OZONE GAS UPON THE GROWTH OF CERTAIN BACTERIA. By S. E. Finch, M. D. From New York Medical Journal.

CHRONIC INTESTINAL STASIS WITH REFERENCE TO CONDITIONS FOUND AT OPERATION AND THE MORTALITY. Delivered at the North-East London Post-Graduate College. By Wm. Seaman Bainbridge, A. M., Sc. D., M. D., Professor of Surgery, New York Polyclinic Medical School and Hospital; Surgeon, New York Skin and Cancer Hospital. From the British Medical Journal, November 1st, 1913.

This is an interesting and instructive story of kinks and bonds sequent to neurasthenic intestinatory and operable enteroptosis.

ARTERIAL LIGATION, WITH LYMPHATIC BLOCK, IN THE TREATMENT OF ADVANCED CANCER OF THE PELVIC ORGANS—WITH A REPORT OF FIFTY-SIX CASES. By William Seaman Bainbridge, A. M., ScD., M. D., New York City.

STRAWS FROM THE FIELDS OF LEPROSY. By E. S. Goodhue, A. M., M. D., LL.D., The Doctorage, Hawaii.

RHEUMATISM PHYLACOGEN (Modified Rheumatism Vaccine). Prepared according to the method of Dr. A. F. Schafer, by Parke, Davis & Co., Detroit, Mich., U. S. A.

A convincing brochure.

TECHNIC OF THE INTRA-ABDOMINAL ADMINISTRATION OF OXYGEN. By William Seaman Bainbridge, Sc. D., M. D. New York.

THE SURGICAL TREATMENT OF CANCER. By William Seaman Bainbridge, A. M., Sc. D., M. D. New York.

POSSIBLE ERRORS IN THE DIAGNOSIS OF ABDOMINAL CANCER—A PLEA FOR EXPLORATORY LAPAROTOMY—ILLUSTRATIVE

CASES. By William Seaman Bainbridge, M. D. New York City.

REPORT OF THE COMMITTEE ON APPLIED EUGENICS. To American Medico-Psychological Association, at its Sixty-ninth Annual Meeting. From American Journal of Insanity.

LIST OF MEMBERS OF THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION. Officers of the American Medico-Psychological Association, 1912-1913.

THE PSYCHO-ANALYTIC REVIEW, Vol. 1, No. 1, Quarterly, for November, 1913, is "a journal devoted to an understanding conduct," edited and published by Wm. A. White, M. D., and Smith Ely Jelliffe, M. D., two medical writers of merit appreciated by the profession, and already well known to our many readers.

The theory of psychoanalysis is well set forth in the present volume by C. G. Young. Self Mutilation, by L. E. Emerson. Blindness as a Wish, by Ames, Technique of Psychoanalysis by Jelliffe, A Critical Digest of the Paranoia Problem, by C. R. Payne, and a translation of wish fulfillment and fairy tales by Franz Riklin, with abstracts, correspondence and book reviews concludes the first number.

All of the above, with what we know of the merit and ability of the able editors and demonstrated by former work, some of it through our own pages, give promise of a valuable addition in the literary medical world of the psycho-analytic side of psychiatry.

THE EFFECT OF A MOMENTARY CONTACT WITH AN 18,000 VOLT CURRENT. By Philip King Brown, M. D., San Francisco.

INTRAVENOUS ANAESTHESIA. By William Francis Hohan, M. D., of New York, Surgeon to the Metropolitan Hospital, and J. Wyllis Hassler, Assistant Surgeon, Metropolitan Hospital. From Annals of Surgery for December, 1913.

SOLVING THE MYSTERY OF BRIGHT'S DISEASE, A PRELIMINARY PAPER. By John Aulde, M. D., Philadelphia, Pa. From the Medical Record.

The author maintains and gives experimental data to prove that neutralization of acid excess in Bright's disease nephritis suffices to arrest its progress, maintaining that magnesium infiltration is the chief cause and magnesium dissociation is the principal remedy.

A FATAL CASE OF COCCIDIOIDAL GRANULOMA. By Philip King Brown, M. D. San Francisco.

DIETETIC STUDIES.—An Experience With Casein-Sodium-Glycero-Phosphate in Twelve Cases in Private Practice. By R. J. E. Scott, M. D. (New York), M. A. and B. C. L. (Durham), Gynecologist to the Demilt Dispensary; Assistant Gynecologist and Chief of the Gynecological Clinic at the West Side German Dispensary; etc.

GOVERNOR SULZER'S MESSAGE ON PUBLIC HEALTH, With Report of Special Public Health Commission of the State of New York.

This report on the part of the Governor and of the Public Health Commission is broad, comprehensive and thoroughly considerate of the sanitary interests and welfare of the people of that great Commonwealth and worthy of emulation by every state chief executive of the American Union.

PUBLICITY CONCERNING THE INSANITIES.—Medical Record and Medical Era.

Publicity in the sense of enlightening the public as to what insanity really is and our present-day method of treatment as well as to the prevention is not amiss. A sentiment exists even now among the laity that to be insane is a disgrace; that a patient suffering from insanity is a howling maniac to be guarded and watched as though he were a criminal. They are not familiar with the disease and its present-

day treatment and they do not know that many forms of the disease are not hereditary in the truest sense.

Our present knowledge of the etiology of the disease is that alcohol, syphilis and heredity are the potent factors. The public should be judiciously instructed relative to alcoholism and syphilis; the question of heredity, however, is a subject which should be handled guardedly. Segregation and sterilization of the feeble-minded and the prevention of marrying of chronic alcoholics and epileptics should be pushed to the utmost.

THE Cleveland Medical Journal contains the following:

"I plead for the abolition of the practice of brushing passengers in the body of a Pullman coach. The traveling public seems to be totally unaware of the effect of this practice on fellow passengers, and its danger to their health. I have seen the health officer of a big city and the head nurse of a medical dispensary stand up while the porter transferred the dust from their garments upon their fellowpassengers. The Pullman Company claim to have some rules requiring the brushing to be done in the little narrow hall. This works a hardship to passengers in either end of the coach. What is needed is total prohibition of the practice in the coach, and the archaic whisk broom replaced by a modern process for the accommodation of those who wish the service.

"(MRS.) S. LOUISE PATTERSON."

This is in line with our editorial plea, oft repeated, for a chance to escape the diseases while traveling. All the risk in traveling is not in derailing, collisions, etc. The whisk broom in action and the culinary department of the diner are perils to be considered.

ALCOHOLIC INSANITY AND THE STIGMATA OF DEGENERACY (illustrated) is the caption and theme of an interesting and timely medical paper of decided merit, by Dr. Marc Ray Hughes, formerly a Professor of Psychiatry and Neurology, which appears in the February 25th number of that excellent exchange, the Medical Fortnightly, of St. Louis, Mo.

It is significant at this time of anti-alcoholic agitation in the public mind to see medical men turning their investigation toward a right understanding of this pernicious, all too popular alcoholic drink in the form of its potable compound used so generally as though it were a harmless beverage.

The author presents for the reader's consideration the faces of five boys and men, ranging in age from sixteen to thirty-two years. Each one has or had, at the time of their birth, parents who were habitual drunkards or inebriates, and each one of the six shows stigma of degeneracy, and each one serving a sentence for some crime. The author concludes: "It is impossible to get away from the fact that like begets like, and alcoholic parents beget children with criminal or other degenerate tendencies."

In this he is in harmony with Morel, Crothers and other eminent investigators who have wrought before him.

LA PARALYSIE GÉNÉRALE. Par le docteur Henri Damaye, Médecin de l'Asile d'aliénées de Bailleul. Extrait de l'Echo Medical du Nord. 8 Février, 1914. Lille. Plateau & Cie., Imprimeurs-Éditeurs.

This is a clear presentation of this always interesting subject to the alienist clinician.

THE TREATMENT OF RHEUMATIC INFECTIONS is an interesting brochure emanating from the press of Parke, Davis and Company, and setting forth the views of Dr. Schafer and showing the clinical and therapeutic value of Schafer's Phylacogens in rheumatism and other affections.

The theory of Dr. Schafer is that rheumatism and many other diseases are due to mixed infection, that is, "the great variety of micro-organisms harbored by the human organism without harm to itself during periods of physiological resistance falls below par, and microbic forms of toxicity join in the morbid assault and should be antagonized by a combined assault, hence the combination named phylacogens, a mixture of bacterial derivatives as devised by Dr. Schafer."



Much clinical and therapeutic experience and laboratory experience is detailed in this book. Many brief articles from many medical sources, physicians and medical magazines commendatory of phylacogens treatment showing good results are presented.

The author has drawn upon and records an extensive bibliography for so new a subject, and the little book has a remarkable amount of information for its size.

It is exceedingly well indexed and can be read piecemeal in the physician's leisure moments. Phylacogens embody a new idea in medical thought and not alone in regard to rheumatism.

THE RECENT CONFERENCES ON MEDICAL EDUCATION.—The Bulletin of the Chicago Medical Society is before us containing among other interesting matter the two especially important subjects which here follow:

In the Bulletin of recent date was published the program of the A. M. A. conference on medical legislation and medical education, and also the meeting of the Association of American Medical Colleges. Both of these conventions were well attended and exceedingly profitable to those who followed the papers and discussions.

J. W. Pettit, of Ottawa, Ill., read a paper on "Public Education Through the Daily Press," and boldly expressed the belief that the public is entitled to knowledge of advances in medicine, not in the form of special cures by particular men, but well chosen reliable news given officially to the press by organized medicine.

We have had considerable experience with the press during the last year and are glad to endorse what Dr. Pettit said on this subject. Our observation proves his contention that the press gladly accepts news of interest to its readers when it is *real news*.

The subject of most vital importance considered during both conventions was preliminary education. Much was said

on the subject by a few, and we gained the impression that each was vying with the other to add just a little more to the preliminary requirements.

However, one point of criticism seems pertinent. In most of the sessions it was noticeable that little or no provision had been made for general discussion by the delegates. In most instances a paper was read, and as soon as the official discussors had made their comment, lack of time was pleaded, and the program crowded at once to the next paper. This plan we think a great mistake. Better one-half the number of papers and free discussion, or better yet, perhaps, the same number of papers extended to evening sessions or to an added day. The effect of this excessive economy and limitation of time is to rob the proceedings of the ripe experience and virile thought of many men who come from widely different locations and conditions and view things from different angles. The way to get effective service from the membership of such organizations and a wise public opinion based upon the initial co-operation of many, is to give encouragement to free expression of ideas. This appertains especially to subjects of such vital importance as that of "preliminary medical education."

Whatever the authority and actual powers of the above organizations, it is after all a fact that the settlement of this question rests with two forces: the United States Government (a faint possibility) and the individual State Legislature. The latter is the present factor and not easily reached. It is true that a few state legislatures have been broad and intelligent enough to recognize the needs in this matter, but only a few.

Our suggestions to the delegates for future conferences is to forget the learned discourses about units, credits, conditions, etc. Put all of the energy into efforts to agree upon a standard which will meet with the approval of all. Make the standard a little lower than seems now proper, but higher than it is at present as an average in all of the states, and then educate the public to their own need.

Get together first. Follow the advice of Dr. Pettit in his paper and give the news officially to the press for the educa-

tion of the public, leaving it to the public to force their representatives in the legislature to keep away from the pathists, cultists and such ilk who are now the obstructionists in the matter.

We also suggest to the delegates not to overlook the fact that the press always sends reporters to attend the meetings, and, judiciously handled, first-hand information may be furnished where it will do the most good. At the conference of American Colleges the press representatives were so vitally interested in the great question of whether physics should be made a one-half unit condition or no condition at all, that two reporters, after a heated discussion, nearly settled the future of the Federal Base Ball League.

Editorial Comment.—Concerning the making of doctors of medicine the essential thing now is to circumvent the present fearful multiplication of fake and faddist practitioners by giving young men inclined to rational ethical medicine, a chance in regular schools within reasonable time of their mature opportunity for earning a livelihood. If the medical education term is too long the medically inclined will take up with chiropractics, osteopathy and other prevailing limited or spurious medical cults.

Four years is long enough study time for the average medical practice aspirant and the general welfare of the regular medical profession and the people's interests generally, and this is saying nothing to the disparagement of more prolonged school education for the exceptional few, who may have the time, means, inclination and opportunity to make exceptionally well informed laboratory and other specialists of themselves.

BURKHOLDER ON THE ANATOMY OF THE BRAIN, a manual for students of medicine and practitioners, has made his subject so plain that no student or physician in practice disconnected from medical college dissection opportunity can well dispense with this worthy book. It is full of splendid illustrations clearly confirming the lucid text.

The most unique and practical thing about this book for the ordinary doctor without special human dissection facili-

ties is the fact that the author has dissected the brain of the sheep because of its availability and practical identity with the human brain for illustration.

Dr. Burkholder is professor of ophthalmology in the School of Medicine of Loyola University.

The introduction is by Prof. Henry H. Donaldson. Forty full-page plates illustrate the book, and G. F. Engelhard & Co., Chicago, are the publishers.

CONGRÈS des Médecins Aliénistes et Neurologistes de France, et des Pays de Langue Française. XXIIc. session. Tunis, 1er-7 Avril, 1912. Le Syndrome Atavisme ou Zoanthropoidisme Mental. Par le Dr. Paul Courbon, Médecin de l'asile d'aliénés d'Amiens. Paris. Typographie Plon-Nourrit et Cie.

SOME OF THE INCORRECT AND HYBRID TERMS IN THE MANUAL OF THE INTERNATIONAL LIST OF CAUSES OF DEATH. —Published by the Bureau of the Census, E. Dana Durand, Director, Washington Printing Office, 1911. By A. Rose, M. D., New York City.

THE INJUSTICE OF HISTORY.—A Neglected Patriot. By Companion Captain William R. Hodges. Commandery of the State of Missouri. Military Order of the Loyal Legion of the United States. Read October 4, 1913.

PRIMARY INFECTION WITH TUBERCLE BACILLI, WITH SPECIAL REFERENCE TO THORACIC GLANDS. By Philip King Brown, M. D., San Francisco.

EPIDEMIC POLIOMYELITIS. By Philip King Brown, M. D., San Francisco.

THE BULLETIN OF THE AMERICAN ACADEMY OF MEDICINE, specializing, as it does so well, in medical sociology, should be an essential part of every physician's collection of medical magazines. In line with an editorial in our present

issue on the physician's duty in forming public opinion, it will keep his mind alive to the meritorious work of the physician members of that eminent society's efforts during the past fifteen years for the sanitary welfare, mental and physical, of our race. This Bulletin and Society were, in fact, among the earliest uplifts in the direction of our social and professional welfare.

Our exalted aim as a profession for higher medical education and the present diffusion of extensive sanitary knowledge had its organized beginning in the organization of this valuable Society and Bulletin of higher medical aim and effort. Long may this worthy body and its worthy Bulletin live and prosper. Only three dollars a year is the subscription price, or fifty cents a copy. Draw checks to the American Academy of Medicine, 52 N. Fourth street, Easton, Pa.

PSYCHANALYSIS: ITS THEORIES AND PRACTICAL APPLICATION. By A. A. Brill, Ph. B., M. D., Chief of Clinic of Psychiatry and Clinical Assistant in Neurology, Columbia University Medical School; Chief of the Neurological Department of the Bronx Hospital and Dispensary. Second edition, thoroughly revised. Octavo of 393 pages. Philadelphia and London: W. B. Saunders Company, 1914. Second Edition. Cloth, \$3.00 net. W. B. Saunders Company, Philadelphia, London.

This interesting book by an always interesting writer is dedicated to the author's esteemed teacher, Professor Doctor Sigmund Freud, the renowned author and developer of Psychanalysis "whose ideas are herein reproduced" and extended.

The author's "main object in this book is to present the practical application of Freud's theories in one volume, hoping thereby not only to remove many false conceptions entertained concerning psychanalysis, but to stimulate further interest in Freud's original works," and he has succeeded in his object.

The author has done much in bringing psychanalysis within the field of psychotherapy.

The author very correctly notes that Medical Schools are now paying more, though not enough attention to mental diseases, especially in the "border line cases," and considers psychanalysis the "most rational and effective method of psychotherapy."

DIAGNOSTIC SYMPTOMS IN NERVOUS DISEASES. By Edward L. Hunt, M. D., Instructor in Neurology and Assistant Chief of Clinic, College of Physicians and Surgeons, New York City. 12mo. of 229 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$1.50 net.

This is a tersely written and well illustrated book of brief enough dimensions for the overcoat pocket and withal thoroughly comprehensive and clear in its text, the author being clinical instructor in the clinic of the College of Physicians of the Medical Department of Columbia University, etc., as above noted, is particularly well qualified for the task he has imposed upon himself and done so well as to merit the expert commendation of experienced criticism. One of the special features of this valuable book of diagnostic instruction is the prominence given to the handwriting and gait of patients.

The stepping gaits, foot prints, hernia cerebri and the peculiar wearing sequences on the soles of patient's shoes are especially included in the author's illustrations of neuropathic symptoms.

THE WASSERMANN REACTION IN CANCER. By Frederick J. Fox, M. D., New York. Medical Record.

"WHOM THE GODS WISH TO DESTROY, THEY FIRST MAKE MAD." The Coterie of Politicians Who Run the A. M. A. Finally Shows Its Hand. G. Frank Lydston, M. D. The author presents this paper to the profession merely as one standing on the side lines watching the passing show, entertaining no hope, he says ironically, of awakening the physicians of the country to a sense of their danger from medical despotism and trust-monopoly. Many years of hard and ex-



pensive endeavor have shown him that the average member of the profession is indifferent to everything save his own individual interests.

Five years ago the political Powers 'That Be sent from the throne on Dearborn avenue this message to the profession in answer to his exposé of the putrid conditions that prevailed in medical Denmark:

"There's simply nothing to it. Everybody except Lydston is satisfied with conditions in the A. M. A."

Experience has proved that the oracle of Dearborn avenue was right. Certain persons were, of course, not satisfied to have certain other persons hold all the offices, otherwise there apparently was no complaint.

The author further says he is not foolish enough to believe that the perusal of it will let the smallest ray of light into the thought chambers of those "insurgents" for place and power only, who consider that the end and aim of reform agitation are only to capture offices for themselves and their satellites.

And so these gentlemen go empty-handed to state and national association meetings and empty-handed they return. They simply march up the hill and down again.

We think the author is mistaken.

A storm is brewing. The A. M. A., like the country, will become again a democratically governed society, for right and truth and justice will prevail. There are too many just men in the A. M. A., even among whom the author considers the oligarchic gang, for this to not come about in a little while. The A. M. A. have not all gone mad. Some symptoms of insanity are still discernible. Wait, Lydston, wait. The vis medicatrix in A. M. A. medical heads works slowly.

THE SMALLER COLLEGES. From the Indianapolis Star. Speakers at the Founder's day celebration of Butler College emphasized what they believe to be some of the questionable tendencies of higher education, particularly in this country. "The greatest danger to American colleges today is the in-

clination to build great laboratories and buildings and buy large tracts of picturesque campus space while the scholarship standards are allowed to decline," said Abram E. Cory of Cincinnati, head of the "men and millions" movement in the Christian Church. Dean Percy H. Boynton of the University of Chicago added his opinion that "the tradition of work has declined steadily in our colleges." Dean Boynton spoke an encouraging word for the small colleges, where, he said, men usually are more sincere in their efforts to succeed, and become stronger than those that are graduated from the larger institutions.

The power of the small colleges to build sturdy, self-reliant manhood and womanhood may be attributed now, as in the days when there were no large colleges to speak of in the United States, to the greater attention to the personal side of life that prevails there. Men attached to the faculties of the great universities have been led to question whether there ought not to be a limit on their number of students. And if this doubt exists, one of the causes for it may lie in the fact that in vast congregations of young people there is bound to grow up the impersonal atmosphere between teachers and students, and among students themselves, that is destructive of a normal and vigorous unfolding of human character.—Editorial.

THE JOURNAL OF EXPERIMENTAL MEDICINE is one of the magazines of American medical research that if space allowed we would copy entire into our pages. It should be a companion magazine to the *Alienist and Neurologist* in every wise physician's file of instructive magazines.

TEACHING SEX HYGIENE IN THE PUBLIC SCHOOLS. By Dr. E. B. Lowry, author of "False Modesty," "Herself," etc. This book is timely and prudently written. The instruction of children in personal purity is treated sensibly and thoroughly. The relation of the home and the school to the subject is discussed and proper methods. It will prove a help to parents,

teachers and all interested in child welfare and a right knowledge of sex and its impulse perils, the government of the dominating passions as essential to racial safety from degradation and degeneracy.

THE FORTY-THIRD ANNUAL MEETING of the American Society for the Study of Alcohol and Other Narcotics made at Philadelphia, last December 3 and 4. A splendid showing of scientific and convincing progress as to the toxic and degenerating nature of alcoholic toxicity and was a great warning to the thoughtful as to the personal peril of the alcoholic social drink habit all too popular yet in our alcoholically imperilled country.

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# A Temporary Diet for Infants in Summer Diarrhea

Mellin's Food

*4 level tablespoonfuls*

Water (boiled, then cooled)  
*16 fluid ounces*

Each ounce of this mixture has a food value of 6.2 calories—affording sufficient nourishment and in a form readily assimilable.

# THE ALIENIST AND NEUROLOGIST

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IS GENIUS A SPORT, A NEUROSIS, OR A CHILD  
POTENTIALITY DEVELOPED?\*

BY JAMES G. KIERNAN,

Chicago, Ill.

Formerly Assistant Physician Manhattan State Hospital  
(1874-8) and Superintendent Chicago State Hospital  
(1884-9)

Fellow Chicago Academy of Medicine, Foreign Associate Member French  
Medico-Psychological Association; Honorary Member Chicago Neuro-  
logic Society, Honorary President Section of Nervous and Mental  
Diseases Pan-American Congress 1893, Chairman Section on  
Nervous and Mental Diseases American Medical Asso-  
ciation 1894; Professor Neurology Chicago Post-  
Graduate School 1903; Professor of Nervous and  
Mental Diseases Milwaukee Medical Col-  
lege 1894-5; Professor of Nervous and  
Mental Diseases Medical Depart-  
ment Loyola University 1905;  
Professor of Forensic Psychi-  
atry Kent-Chicago  
College of Law.

Lowell in the forties became the pessimistic philistine which his adolescent stress and environment prophesied. Howells' sketches this vividly in his picture of Lowell, who, as Howells says, "came into his life when it had spent its impulse to positive reform, and I was to be a witness of its increasing tendency towards the negative sort. He was quite past the storm and stress of his antislavery age. With the

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\*Continued from Alienist and Neurologist, Feb, 1914.

1. Literary Friends and Acquaintances.

close of the war, which had broken for him all his idols of inviolable peace, he had reached the age of misgiving. \* \* \* I never heard him express doubts of what he had helped to do or regrets for what he had done, but I know he viewed with critical anxiety what other men were doing with accomplished facts. His anxiety gave a cast of what one may call reluctance from the political situation and turned him back towards those civic and social defences which he had once seemed willing to abandon. \* \* \* He had quite a Socratic reverence for law as (used in the sense of statutes) law and equity. This was not the logic that would have justified the attitude of the antislavery men to the fugitive slave law. Writing at the distance of Europe and with America in perspective, which the alien environment clouded, he spoke of her as 'the Land of Broken Promises.' \* \* \* He was rather severe in his notions of the subordination his domestics owed him. In short, with the climacteric, New England anglo-maniac contempt for other Americans and the common people cropped out. The contempt that showed itself in the sweating at Lawrence and the earlier sweating Butler checked by his famous milestone levy for petty wages cut down by early discharge. Refusal of which no suit could check ere that levy.

The attitude of Lowell after the pharisaic pose of the abolition era (chiefly an expression of New England's contempt for the South and West) was that of the British squirearchy. The spirit that in the war of 1812 led Nantucket to secede from the United States and annex itself to Great Britain.

When urged as a Hayes elector, by certain of his own Brahmin cult, who favored justice to the popular majority, to vote for Tilden and thereby lesson the Supreme Court Judge Bradley as to equity, Lowell on the narrowest politician grounds refused. The appeal was made to him on moral grounds he had urged against the slave oligarchy. Had this oligarchy been a Massachusetts one like the "protected" wage slave oligarchy so much in evidence in Lawrence, Lowell would never have fought it.



While he eulogizes Lincoln as our great American, he had no sympathy with Lincoln's Jeffersonian love for a government of the people by the people and for the people. Albeit like Cromwell, Lincoln converted the republic into an absolutism for this purpose, still, like Cromwell, he was prepared when the emergency passed, to restore all powers.

The youth of de Musset has much of the storm and stress which Goethe felt and which appears in Carlyle, Ruskin, Lowell and many others. The adolescent pessimism therefrom resulting appears in full egocentric vigor and bitterness in "The Child of the Century." Lewis Pruget Shanks<sup>2</sup> goes far in the optimistic direction when he remarks that "all the dreams of French romanticism are recalled by the centenary of Alfred de Musset (born Dec. 11, 1810), for the life of this poet might be said to typify the romantic school.

"Never did the genius of 'Young France' come to such a sudden flowering as in 1830; and this spirit of youth Musset personifies in all its vivid brevity. A nervous, precociously brilliant boy, he recited his first verses, at seventeen, in the *salon* of Charles Nodier; and the long-haired Romanticists petted and spoiled the youth, unconscious that he was to become their *enfant terrible*. Famous at twenty, Musset lived the life of a dandy, dividing his time between society, his *café*, and the writing of Byronic verse. A gay young Epicurean, he remained heart-whole and fancy-free until he met George Sand, in his twenty-second year. How he fell in love with that passionate Egeria, eight years his senior, and how his fickle muse betrayed and abandoned him within the year, every one knows in this age of literary gossip; and every one knows how this catastrophe gave us Musset's greatest poems, written in anguish and blotted with his tears. The permanent effects of this experience upon the poet's character have been variously estimated, some critics entirely absolving George Sand from blame; but however that may be, it is true that Musset never outgrew his disillusionment. A victim of Romantic ideals,

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2. Chicago Dial, 1910.

we find him, at thirty, exhausted in mind and shipwrecked in morals, yet destined none the less to drag his genius for sixteen years through Paris gutters, until the curtain fell upon the sordid tragedy.

"It is not an edifying story, especially in its pitiful ending. A veritable spoiled child, as M. Faguet calls him, Alfred de Musset remained a spoiled child to the end of his days. To a nature such as his, life itself could teach little or nothing. A voluptuary as well as a dreamer, all that he got out of his search after happiness was a philosophy of disillusion; and his was a despair which lacked the force to take refuge in the objective world. He could not cry with *Candide*, 'Il faut cultiver notre jardin' [We must cultivate our garden]. And so we feel that one thing was lacking to his destiny—the early death which consecrates a poet as dear to the gods. Why was he not taken away at thirty, to join the immortal company of Chatterton, Keats, and Shelley? Alas for Musset, in his later years his poetic muse had all but left him, and the muse of debauch rarely beguiled his pen." Middle age was reached before death claimed him, yet for all this, for all that he died at forty-six, even de Musset's later verses stamp him in literature as the poet of youth. It wells up, in his early plays and verses, "like the sap of April—youth in all its exuberance, effervescent with energy, overflowing with the restless fancies of an awakened imagination and a quenchless curiosity." All of youth's thirst for experience burns in the early work of Alfred de Musset. All of youth's changing moods are there—sentiment, passion, and revolt; and, playing over all, the prankish humor of a young faun. Even opposites find place in its variety of moods, for in that first volume are revealed a lighter-hearted Don Juan and a lesser Lamartine. 'En littérature on est toujours fils de quelqu'un' [In literature one is always the son of some one]; and Byron, we must remember, lay beside Shakespeare and Schiller on the *table de nuit* of the French Romanticists. Musset, however, never consciously imitated any one; indeed, he did not need to. There were so many themes to weave into plays or poems: love and life, and

all the emotions of youth. There were so many moods, so many measures; and his lute knew them all in turn. All the wit and mischief of the Paris gamin bubble up in the 'Ballade à la Lune'; all the fervor of a boy's revolt against conventions overflows in 'Mardoche' and 'Les Marrons du feu.' There is melancholy, too, in some of his verses; but we need not take it very seriously. 'It is so pleasant to think oneself unhappy,' says Musset in his autobiographical novel, 'when one is only empty and bored.' Lamartine, of course, had made pessimism fashionable, and no one could escape it in 1830; but if our young poet yielded a moment to its spell, his real attitude may be seen in his hero *Rafael*, who has rejected melancholy and 'given his life to the lazy god of Fancy.' In fact, *Don Rafael* is no other than his creator Musset, in all the pride and spirit of his twentieth year.

"Of course, all of these early poems deal with love. Inexperienced as yet, Musset already reveals his temperament; through all the objectless passion of these verses we see the disillusionment that must come. At twenty-two, his knowledge of love is mainly literary and if we turn for its sources to his favorite books, we shall find that they were the *Decameron* and 'Manon Lescaut,' the novels of Cr billon and Louvet de Couvray. Such, alas, was Musset's early reading; and this is why our poet's ideal of love, as it appears throughout his plays and poems, reveals itself as a curious mixture of Romantic aspiration and the pagan spirit of the Regency or of the Renaissance.

"Such is the Musset 'before George Sand.' The Musset that came after is a more tragic figure, and the love he sings, in the splendid 'Nuits,' that voice his passion and his despair, is now a terrible reality. No willful fancy of a sensuous imagination is this, but love in the presence, burning with all the passionate regret of a wrecked hope and a shattered ideal. In 'Souvenir' we have a calmer mood, love in its regret for a past idealized by time; and in the matchless stanzas to la Malibran, love thrilled with the tragedy of death and the long-

ing for an immortal life. We can see now why Musset was the idol of his contemporaries. We can understand why his admirers once outnumbered Victor Hugo's.

"We realize why his comedies and dramatic proverbs, in which he catches a breath of the true Shakespearian fancy, still hold their own upon the boards of the Comédie Française. 'It is not enough to be admired,' he says in one of his poems, 'one must be loved too.' Alfred de Musset was both admired and loved. 'The favorite poet of France,' as Taine called him years ago, his popularity, temporarily obscured by the symbolists and the Banville school, lies safe in the hearts of the older generation.

"No permanent eclipse can fall upon this singer of youth. No change of literary fashion can overthrow a poet who, dandy of letters as he was, never wrote a line save in absolute sincerity to his mood. We wonder so often, when reading Victor Hugo, whether his finest flights are not merely feats of rhetorical *maëstria*. Not so with Musset. When death overtook him, in May, 1857, Alfred de Musset was ready. Tired and disillusioned, worn out with life as he had conceived it, he closed his eyes at last with the words: '*Enfin je vais dormir.*'"

This analysis disregards not only the known psychology of de Musset, but its literary expressions, the "Child of the Century," which is decidedly decadent rather than romantic. "Gamiana," de Musset's pornographic story, is a decided expression not merely of the sexual psychopathy of his pre George Sand period, but of his sadism. This was confined in actual expression to soiling of dresses, but, like all such early expressions of sadism, contained potentialities of graver and darker types. Daudet's picture of him in "Sappho" as the poet of Love is truer than that just cited from Shanks. Even Shanks' picture has much of the morbid adolescent. A similar mental state appears in Charles Eliot Norton's edition of Ruskin's letters.<sup>4</sup>

They reveal, says Norton, a nature that was "in the high-

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4. Literary Digest, December 17th, 1904.

est degree complex; it was full of contrary elements which he never succeeded in reconciling so as to obtain steady equilibrium and tranquillity of soul, or persistent fixity of aim."

"Taken altogether," Norton says, "they form a tragic record of the perplexities of a great and generous soul, the troubles of a tender heart, the spendthrift use and at last the failure of exceptional powers. Such genius, such high aims, such ardent yet often ill-directed effort, and such great yet broken achievement, such splendors sinking into such glooms—it is a sorrowful story."

Ruskin's ungoverned extravagance of expression is found in the very early part of the intercourse, before broken health and disappointed hopes can be urged in explanation. He writes to Norton, then at Rome, and gives what seem to him "incontrivertible and accurate conclusions" as to the general character of that city:

"\* \* \* that the streets are damp and moldy where they are not burning; that the modern architecture is fit only to put on a Twelfth-cake in sugar (*e. g.*, the churches at the Quattro Fontano); that the old architecture consists chiefly of heaps of tufa and bricks; that the Tiber is muddy; that the Fountains are fantastic; that the Castle of St. Angelo is too round; that the Capitol is too square; that St. Peter's is too big; that all other churches are too little; that the Jews' quarter is uncomfortable; that the English quarter is unpicturesque; that Michaelangelo's Moses is a monster; that his Last Judgment is a mistake; that Raphael's Transfiguration is a failure; that Apollo Belvidere is a public nuisance; that the bills are high; the malaria strong; the dissipation shameful; the bad company numerous; the Sirocco depressing; the Tramon-tana chilling; the Levante parching; the Ponente pelting; the ground unsafe; the politics perilous, and the religion pernicious. I do think that in all candor and reflective charity I may assert this much."

In the latter years of 1850-60 Ruskin's convictions in respect to matters of deepest concern "underwent a vital change, which disturbed the currents of his life, turning them into



new and troubled channels. Youth came to its close; the props which had supported it and the defenses which had guarded it fell away one after the other, and were leaving him solitary and exposed." The following shows the effect of this unsettlement:

"THUN, 15th August (1859).

"\* \* \* It's very odd I don't keep writing to you continually, for you are almost the only friend I have left. I mean the only friend who understands or feels with me. I've a good many radical half friends, but I'm not a radical and they quarrel with me—by the way, so do you a little—about my governing schemes. Then all my Tory friends think me worse than Robespierre. Rossetti and the P. R. B. are all gone crazy about the Morte d'Arthur. I don't believe in Evangelicalism, and my Evangelical (once) friends now look upon me with as much horror as on one of the possessed Genesaret pigs. Nor do I believe in the Pope—and some Roman Catholic friends, who had great hopes of me, think I ought to be burned. Domestically I am supposed worse than Blue Beard; artistically I am considered a mere packet of squibs and crackers. I rather count upon Lowell as a friend, though I've never seen him. He and the Brownings and you. Four—well—it's a good deal to have—of *such*, and I won't grumble—but then you're in America, and no good to me—except that I'm in a perfect state of gnawing remorse about not writing to you; and the Brownings are in Italy and I'm alone as a stone on a high glacier, dropped the wrong way instead of among the moraine. Some day, when I've quite made up my mind what to fight for, or whom to fight, I shall do well enough, if I live; but I haven't made up my mind what to fight for—whether, for instance, people ought to live in Swiss cottages and sit on three-legged or one-legged stools; whether people ought to dress well or ill; whether ladies ought to tie their hair in beautiful knots, whether Commerce or Business of any kind be an invention of the Devil or not; whether Art is a Crime or only an Absurdity; whether Clergymen ought to be multiplied, or exterminated by arsenic, like rats; whether



in general we are getting on, and if so where we are going to; whether it is worth while to ascertain any of these things; whether one's tongue was ever made to talk with or only to taste with."

In 1861 the following pathetic outcry:

"As for things that have influenced me, I believe hard work, love of justice and of beauty, good nature and great vanity have done all of me that was worth doing. I've had my heart broken, ages ago, when I was a boy—then mended, cracked, beaten in, kicked about old corridors, and finally, I think, flattened fairly out. I've picked up what education I've got in an irregular way—and it's very little. I suppose that on the whole as little has been got into me and out of me as under any circumstances was probable; it is true, had my father made me his clerk, I might have been in a fair way of becoming a respectable Political Economist in the manner of Ricardo or Mill—but granting liberty and power of traveling, and working as I chose, I suppose everything I've chosen to have been about as wrong as wrong could be. I ought not to have written a word; but should have merely waited on Turner as much as he would have let me, putting in writing every word that fell from him, and drawing hard. By this time I might have been an accomplished draftsman, a fair musician, and a thoroughly good scholar in art literature, and in good health besides."

Ibsen sprang from a mixture of Scotch, German and the dark Gael who, according to Mantegazza, had a colony near Bergen, Norway. His adolescence was spent in decidedly conventional surroundings, the mental reaction against which would naturally create the drama of protest. This influence of environment is regarded usually as temperamental and expressive of individualism purely. According to George Brandes:<sup>5</sup> "After his confirmation Ibsen's school days were over as far as his parents were concerned. They could not afford to let him study art as he wished to, and he began to work as a clerk in a drug store at Grimstad. Grimstad was a little village of 800 inhabitants, and they were not broad-

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5. Literary Digest, March 19, 1910.

minded or interested in anything lofty or ideal. Everybody knew every body else, not only by sight but through and through; people were ranked according to their fortune and social influence; they worshiped the usual, the customary, and considered any individuality as impertinence or madness."

Christian Due<sup>6</sup> says:

"When passing the pharmacy one day with a friend he asked me whether I had seen the new clerk, as there was something peculiar about him. People who had no errands at the drug store had no occasion to see him, for Ibsen was never seen outside, at least not during the day. I soon found a pretext for entering the store. This was a low room, so low that I could almost touch the ceiling with my hands, and it was very dingy and dark and musty. It was primitively furnished in every way. There was no sign of life. I rapped on the counter and there very hastily appeared a young man with a lively and engaging face. Ibsen grew a beard at an unusually early age, and it gave his face an energetic and at the same time harmonious expression. My general impression was that of a handsome young man with a good and well-formed figure. At this occasion his face expressed an unmistakable and impatient question, which clearly proved that the customer was far from welcome. I asked him for a few pennies' worth of court-plaster, which he gave me without wasting time or words. But when I handed him the money our eyes met, and I was struck by the wonderful gleam in his eyes. That gleam was the spark of genius. I speak of this apparently unimportant meeting because it made so strong an impression on me."

Soon afterward Due became better acquainted with Ibsen whose "intelligence and bubbling wit was extraordinary." "I soon became a daily guest in the drug store, especially in the evening, when Ibsen had some time to himself. I used to look forward to these evenings all day long." The Ibsen Due knew was totally different from the Ibsen the world knew, the man he grew to be. "And when I have seen my childhood's friend live like a lonely man I have often thought of his youth."

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6. *New York Sun*, 1906.

when he loved so much to have friends around him. Had life and people brought him to much disappointment that he had been forced to isolate himself and to speak only through his works?"

In the Grimstad days Ibsen was very frank, open and fond of friends, even if he never was part of the social life in the little town. His little room behind the drug store soon became the center of attraction, "for the lively, witty young man began to attract attention." His friends used to drop in after the day's work, and—

"There was always fun and Ibsen was the center of it, with an admiring circle around him, bubbling with wit, slightly tinged with sarcasm, and always, in spite of oppressive surroundings, in the best of humor. No one who did not know him would have thought that anything weighed on him. Epigrams rolled lightly from his lips as verses flowed with incredible facility from his pen. He was a wonderful caricaturist and his sketches were passed around with glee. . . . His sense of humor was unusually keen, and kept us all bubbling over with laughter.

"Around midnight some of the more sensible would suggest that Ibsen needed rest, for we all knew that he spent part of the night in studying, but he would always remark calmly that there was plenty of time both for reading and sleeping.

"Ibsen's capacity for work and his bodily strength were phenomenal. It was almost inconceivable what he found time to do in a day. Besides the work of the store, which took up practically the whole day, he studied for college, and most of the subjects he had to master alone. Then his natural bent drove him to spend hours in writing, and this absorbed his attention more and more."

"Ibsen could do everything he put his hand to," says Mr. Due. "His caricatures were extraordinary, while as a landscape painter he showed undoubted talent. But he could not sing. He had a great sense of rhythm, but no ear."

The little room behind the drug store is today often a social and political centre. In the edition of Ibsen's letters

recently translated, as the *Literary Digest* points out, we find at times "that unreserved expression of his personal feelings which has hitherto been, to a great extent, withheld from the public," and we discover, moreover, that "his proverbial reserve is not in reality an essential element of his character." It appears, rather, that his has been a struggle against an atmosphere of restraint. He speaks of himself as a fighter in the intellectual vanguard, and feels that the world has not moved rapidly enough in its toleration to catch up with him. Writing to George Brandes about "The Enemy of the People," he says:

"You are, of course, right when you say that we must all work for the spread of our opinions. But I maintain that a fighter in the intellectual vanguard can never collect a majority round him. In ten years the majority will, possibly, occupy the standpoint which Dr. Stockmann held at the public meeting. But during these ten years the Doctor will not have been standing still; he will still be at least ten years ahead of the majority. He can never have the majority with him. As regards myself, at least. I am conscious of incessant progression. At the point where I stood when I wrote each of my books, there now stands a tolerably compact crowd; but I myself am no longer there; I am elsewhere; farther ahead, I hope."

"Dear Björnson," he once exclaimed, "it seems to me as if I were separated from both God and men by a great, an infinite void." And in an appeal to his king for a pension in 1866 to enable him to continue his work, he said:

"It is not for a care-free existence I am fighting, but for the possibility of devoting myself to the task which I believe and know has been laid upon me by God—the work which seems to me more important and needful in Norway than any other, that of arousing the nation and leading it to think great thoughts."

From the very earliest period, the spirit of restlessness was dominant in Ibsen's character; an ethical dissatisfaction that drove him out of his country the better to view it. He

must have no relatives around him who intellectually are his enemies; he must keep no friends who would prove "an expensive luxury." He wrote:

"The costliness of keeping friends does not lie in what one does for them, but in what one, out of consideration for them, refrains from doing. This means the crushing of many an intellectual germ. I have had personal experience of it; and there are, consequently, many years behind me during which it was not possible for me to be myself. . . .

"I myself am responsible for what I write, I and no one else. I cannot possibly bring trouble on any party; for I do not belong to any. I stand like a solitary franc-tireur at the outposts and act on my own responsibility."

Regarding "Ghosts," he says:

"It may well be that the play is in several respects rather daring. But it seemed to me that the time had come when some boundary-posts required to be moved. And this was an undertaking for which an older writer like myself was more fitted than the many younger authors who might desire to do something of the kind.

"I was prepared for a storm; for such storms a man cannot alter his course; that would be cowardice."

Late, Ibsen wrote:

"So to conduct one's life as to realize one's self—this seems to me the highest attainment possible to a human being. It is the task of one and all of us, but most of us bungle it."

Once out of his own country, he began to write freely, expressing himself unreservedly in his plays, and breathing the greater atmosphere of intellectual activity. Removal from Scandinavia resulted in an interesting change in himself, thus indicated:

"It would be quite impossible for me to settle for good in Norway. Nowhere should I feel less at home than there. A man of reasonably well-developed intellect is no longer satisfied with the old conception of nationality. We can no longer be content with the political community to which we belong. I believe that national consciousness is on the point of dying

out, and that it will be replaced by racial consciousness; I myself, at least, have passed through this evolution. I began by feeling myself a Norwegian; I developed into a Scandinavian; and now I have arrived at Teutonism."

Whenever a return to home is mentioned, Ibsen expresses with fear of the banal influence:

"What I feel is that I should not be able to write freely and frankly and unreservedly there. And this simply means that I shall not write at all. When, ten years ago, after an absence of ten years, I sailed up the Fjord, I felt a weight settling down on my breast, a feeling of actual physical oppression. And this feeling lasted all the time I was at home; I was not myself under the gaze of all those cold, uncomprehending Norwegian eyes at the windows and in the streets."

When he had realized his spiritual home in Munice, and lived for years in Rome and Dresden, and returned to Norway, he writes thus:

"Oh, dear Brandes, it is not without its consequences that a man lives for twenty-seven years in the wider, emancipated and emancipating spiritual conditions of the great world. Up here, by the fjords, is my native land. But—but—but! Where am I to find my home-land?"

As regards his own work, while there is much which he indicates as personal opinion in his many plays, his chief desire always was to make his ideas consistent with the characters he had in mind.

On the publication of "*Hedda Gabler*," the critics immediately began their consideration of the problem underlying the dialogue.

Ibsen commented as follows:

"The title of the play is *Hedda Gabler*. My intention in giving it this name was to indicate that Hedda as a personality is to be regarded rather as her father's daughter than as her husband's wife.

"It was not really my desire to deal in this play with so-called problems. What I principally wanted to do was to depict human beings, human emotions, and human destinies,



upon a ground—aimed at my own spiritual emancipation and purification—for a man shares the responsibility and the guilt of the society to which he belongs.”

Outside of his own country, Ibsen's influence has taken effective hold. He writes:

“The introduction of my dramatic works into France has long been my dream. But I dared not think seriously of it, as it seemed to me to be something quite unattainable. I had no connections in that country to speak of. And I was already so fully engaged, attending to my literary business in Scandinavia, Germany, Austria, England, America, and elsewhere, that it was quite out of my power to make any attempt to extend my field of operations to that great and very inaccessible city, Paris, or what in matters literary is the same thing—to France.”

When William Archer was doing pioneer work for him, he wrote:

“I regret ever more and more that I neglected at the proper time to learn to speak English. Now it is too late. Were I conversant with the language, I should go to London at once, or, to be more correct, I should have been there long ago. I have been revolving many things in my mind lately, and one of the conclusions to which I have come is that there are very strong traces in me of my Scotch descent. But this is only a feeling—perhaps only a wish that it were so. I lack the experience and knowledge necessary to judge.”

Another curious illustration of a natural psychic reaction against an environment similar to that which marred Villon is John Masefield who, evidently imbued with the spirit of Shakespeare's

“Home-keeping youth  
Have ever homely wits,”

ran away from school to which he had often played truant thus beginning a long series of wander years and at last found himself stranded in New York at the beginning of a sultry summer. Two friends, in the same desperate straits, were at that time sharing a garret in Greenwich Village, where he joined them.

For several days they lived on doughnuts and on the sandwiches of the free-lunch counters, while they tramped about the city looking for work. Masfield used to call at livery stables, little eating-houses, bucket-shops, factories, bakeries, and general stores, offering his services at rates which none might call exorbitant. Perhaps he seemed too boyish for employment, for he always looked very young, and perhaps people shunned him for the uncouthness of his appearance. He was burned to a dull brick-color by the sun, for he had passed two months as a common laborer on a farm. He wore the red shirt and the dungarees of the sailor, and an old slouch hat with a broken brim. Those to whom he applied for work were sometimes kind, sometimes rude. But whether they were rude or kind, they refused, one and all, to have anything to do with him.

"His friend fared as he fared, so that in ten days' time their condition was almost desperate. 'We reduced our expenses to tenpence a day among the three of us,' he wrote to a friend in London. 'We did our own washing and dried it out of the window. One of us slept each night on the floor upon a pile of newspapers, with a coat for a pillow. Once or twice a week we went to the Eighth avenue pawnshops, or to a clothes store in Bleecker street, where we raised money on our gear, to enable us to buy tobacco or an occasional egg. Once we sallied out and sang songs in the street, but it came on to rain, and we were all soaked through before the citizens had had time to get out an injunction.'

"They were living in this way when Masfield's good star sent him to the Colonial Hotel on Sixth avenue, which has since been torn down. He was in the habit of going there at lunch-time, for those who bought a glass of beer at the bar were entitled to a free lunch and a sight of the papers."

In one of Masfield's sketches, he writes:

"The proprietor, a small, pale man in a tweed suit, Panama hat, and tan boots, came over to me and began a conversation. 'Say,' he said, speaking slowly, 'do you want a good job?' I said I did. 'Well,' he said, 'I want you to help be-

hind the bar here. Here's a dollar bill; go over to Lee's there an' have a hair-cut. I'll fix you up with aprons. I'll give you \$10 a month and your board and room, and you kin start in right away.'

"When my hair had been clipt I returned to Luke O'Donnell, the hotel proprietor. He brought out a white jacket and an apron, bade me put them on, and then sent me behind the bar to clean glasses. There were two other bartenders, one named Johnny, a little merry man with a dark complexion; the other named John, an elderly stout man with a fat red head and a continual smile. My duties were to clean the glasses which these two artists filled for the thirsty. I, who was not an artist, and could not mix the subtle drinks in vogue, might only serve beer and cigars. If necessary, I had to take a tray laden with curious drinks to men living in the hotel or loafing at the bar-tables reading the papers.

"I had to see that the piping through which the beer ran to the taps was kept packed in ice. I had to keep the bar ice-box filled from the cold-storage cellar. I had to keep the free-lunch counter supplied with food, such as pretzels, sliced Bologna sausage, sardines, salt beef, rye bread, and potato salad. Twice a week I had to take down the electric-light shades, which were of a pinky-blue porcelain, to wash them carefully with soap and water. My meals I ate with the proprietor's family at his flat some half mile away. I slept in a garret in the hotel, right at the top, a queer little room with an ant's nest in the wainscot."

After several months of this life with us, "which, from a financial point of view, were not very profitable, but which enlarged greatly his store of experience and broadened his views on life and the human animal," Masfield returned to England. One of his earlier friends, Mr. Jack B. Keats, an artist and brother of the poet, "prevailed upon him to pause a little and to describe for the benefit of the public his adventures on sea and land."

"This led to some more or less regular hack work, which led to marriage, which led to more regular work, and the tramp settled down.

"Thirty-eight years old and the father of two children, he has probably recovered from his acute and seemingly chronic attacks of wanderlust. And strangely enough London is lionizing him. I say strangely, not because I disapprove of this sudden Masefield craze, but because he seems to be writing the very stuff which in the parlance of editorial chambers 'the public does not want.'"

The influence of environment at the periods of stress has lately been demonstrated vividly by studies of hostile apostles of eugenics like Karl Pearson. In 1911 C. B. Davenport<sup>7</sup> pointed this influence out. For the sciences dealing with environment Dr. Havelock Ellis coined the term eugenics. Previously to either, Harriet Alexander<sup>8</sup> had termed the united factors of birth and environment orthogenics. She discussed its influences before the Chicago Academy of Medicine nearly two decades ago. Davenport remarks:

"The two schools of eugenics and eugenics stand opposed, each viewing the other unkindly. Against eugenics it is urged that it is a fatalistic doctrine and deprives life of the stimulus toward effort. Against eugenics the other side urges that it demands an endless amount of money to patch up conditions in the vain effort to get greater efficiency. Which of the two doctrines is true? The thoughtful mind must concede that, as is so often the case where doctrines are opposed, each view is partial, incomplete, and really false. The truth does not exactly lie between the doctrines; it comprehends them both. What a child becomes is always the resultant of two sets of forces."

Harriet Alexander states that "the tendency is to view degeneracy not from the biologic but from the pathologic standpoint. Teratologic defect, though it may produce not

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7. Popular Science Monthly, 1911.

8. Medicine, 1896.

only secondary biochemic and even organic patho-anatomic changes, is not identical with these, but often expresses merely a functional disorder correctable by environment and training. The forces summed up in natural selection so act, as Ray Lankester<sup>9</sup> remarks, on the structure of an organism as to keep it in statu quo, to elaborate it or to diminish the complexity of its structure. As Roux<sup>10</sup> has shown, there is not merely a struggle for existence between organisms, but likewise a struggle for existence between the organs of the metazoa themselves. Degeneracy is a gradual change of structure whereby an animal becomes adapted to less varied and less complex conditions. In degeneration there is suppression of form corresponding to cessation of work; elaboration of one organ usually accompanies degeneracy in all the others. Hence, contrary to the usual opinion, race of a degenerate does not necessarily tend to die out, but it so departs from the type that this dies out. Degenerates as a rule tend to be parasitic or semi-parasitic; indeed the parasitic state is necessary for their survival as the fittest. The degenerate spider of the human skin (*demode malliculorum*) excellently illustrates this. Should man become extinct, this spider would die out. Sexual selection appears here as elsewhere in development. The female as a rule is true to the type; the male (as in the barnacle) often becomes a mere parasite on the female. Sometimes the reverse occurs. What is true of the lower animals is peculiarly true of man. In the infant, a being wrapped up in the instinct of self-preservation, the primary ego is predominant and the child is an egocentric parasite. As development proceeds, this standpoint is passed conscience assumes its priority, the fore brain acts as check on the purely vegetable functions and the secondary ego becomes predominant over the primary. Civilization follows this evolution.

If this inhibition be weakened or disordered, predominance of the natural instincts occurs, and when totally lost the indi-

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9. Degeneracy.

10. *Der Kampf der Theile im Organisms.*

vidual opposes the ethical order of the race—he is a parasite of the worst kind who lives on his host and destroys him in so doing. Egotism may vary from this extreme to that of the genius who pleads the baby act of eccentricity as an excuse for excess.<sup>11</sup> The last, from a biological standpoint, according to Huxley's logical opinion, stands in the same position as a "sport" among animals and plants, and is a product of that variability which is the postulate of selection both natural and artificial. On the general ground that a strong and therefore markedly abnormal variety is *ipso facto* not likely to be so well in harmony with existing conditions as the normal standard (which has been brought to what it is largely by the operation of those conditions), a large proportion of genius "sports" are likely to come to grief physically and socially. Intensity of feeling, a condition of genius, is especially liable to run into insanity. Hypertrophy in one place is equivalent to atrophy elsewhere.

Removal of inhibitions does not always account for the appearance of art, literature and mechanical powers in the insane hitherto destitute of them. Emotional exaltation is in excess in hypomania and acute stages of mania or allied states of other psychoses. Many an artist, littérateur or mechanical genius finds that an increased cerebral supply of oxygen increases his invention; such increased supply underlies the psychoses mentioned. Insane conceptions rapidly arise under such conditions, and from their very rapidity of origin weaken and even annihilate each other, but as the fittest of them under certain circumstances survive and are as truly creative as the allied creations of artistic literati and mechanicians. The egotistic mental background generally checks development of these creations, which, however, occasionally survive under proper insane-hospital discipline that tends to crush delusional factors. That aid can thus be given these tendencies is a fact that demonstrates their kinship to the normal rather than to that predominant primary ego constituting the abnormal.

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11. Spencer: Principles of Sociology.



Since, even on the Lombrosian view, the genius is nearer to the normal than the lunatic, the effect of environment is demonstrably greater. The genius, along with the whole generation of which he forms a part, along with its institutions, language, manners, and its multitudinous arts and appliances, is a resultant. The genius depends upon the long series of complex influences which have produced the race in which he appears and the social state into which the race has grown. All these changes, of which he is the proximate initiator, have their chief causes in the generation he is descended from.

With all Ruskin's teleologic bias he is forced to admit that much artistic intellect is daily lost in other avocations.<sup>12</sup> (Generally the temper which would make an admirable artist is humble and observant, capable of interest in little things, and of entertaining itself pleasantly in the dullest circumstances. Suppose, added to these characters, a steady conscientiousness which seeks to do its duty wherever it may be placed, and the power denied to few artistic minds of ingenious invention in almost any practical department of human skill, and it can hardly be doubted that the very humility and consciousness which would have perfected the painter have in many instances prevented their possessor from becoming one. In the quiet life of steady craftsmen, sagacious manufacturers and uncomplaining clerks may frequently be concealed more genius than ever is raised to the direction of public work or to be the mark of public praise.)

The principle thus enunciated lights up the gloom of the ordinary pessimistic view of degeneracy with the hope that the neurons of the degenerate may be trained

Till within

The twilight mazes of his brain

(Like embryos within the womb)

Thought pushes feelers through the gloom.

As degeneracy is a process of evolution leading to alteration of form because of cessation of inhibitions in certain directions resultant on diminished work, it logically follows that since diminished functioning precedes change of struc-

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12. Ruskin: *Modern Painters*.

ture, increased functioning must check the change of structure in its biochemical stage. Nay, more; it is evident that the structural elaboration due to degeneracy may be retained while the degenerate structures resume their functions and the degenerate race rank higher in evolution because of the utilization of the beneficial variation due to degeneracy. The influence of this principle is increased by the fact that the vast majority of the children of degenerates exhibit a *tendency* to degeneracy rather than degeneracy itself."

There is a too general tendency to regard the old, much-exploited results of superficial experiments like Mendel as to minor character as evidence that offsets the law of the transformation of heredity, which Moreau de Tours pointed out nearly six decades ago.<sup>13</sup> Moreau found that degeneracy in a family may result in absence of conception from too excessive cell multiplication in the ovum; retardation of conception; unexpected conception; incomplete products, weak products with predispositions. Some seventeen years ago I reported<sup>14</sup> the following family, which originated in the Eastern States, but has branches south and westward. A farmer lived twenty miles distant from his nearest neighbor, whose only child he married. The daughter had led a lonely life till her courtship at the age of 28 by the farmer, then three years younger. The farmer married her for \$200 after having impregnated her. He then found lead on his farm, and went to a city. A stock company bought his farm and launched him into the stock market, where he made money, more as cunning tool than adventurer. He became a high-liver, gouty and dyspeptic, and died from gouty kidney at 70. The couple had five children. The eldest, a son, became a "Napoleon of Finance," inherited his father's cunning, and died wealthy within the pale of the law. He married a society woman, the last scion of an old family. The second child, a daughter, was club-footed and early suffered from gouty tophi. She married a

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13. *La Psychologie Morbide*.

14. *Medicine*, 1897

society man of old family who had cleft palate. The third child, a daughter, had congenital strabismus. She married a man who was suffering from irregular migraine. The fourth child, a daughter, was normal. She married a 30-year-old active business man in whom ataxia developed a year after marriage. The fifth child, a son, was ataxic at eighteen. The scions of the "Napoleon of Finance" and the society woman were an imbecile son, a hysteric, a female epileptic who had a double uterus, a nymphomaniac, and a society man who wrote verses. The cleft-palated society man and club-footed woman had triplets born dead, and a strabismic migrainous son who, left penniless by his father, married his cousin, the nymphomaniac daughter of the "Napoleon of Finance," after being detected in an intrigue with her. The migrainous man and strabismic daughter of the farmer stock-broker had a sexual invert masculine daughter, a daughter subject to periodical epistaxis irrespective of menstruation, as well as chorea during childhood, a normal daughter, a deaf-mute phthisical son, a cloacal daughter, an ameliac son, a cyclopic daughter born dead, and a normal son. The sexual invert married the versifier son of the "Napoleon of Finance." The progeny of the normal daughter of the farmer stock-broker and the ataxic man were a dead-born sarcomatous son, a gouty son with early tophi, twin boys paralyzed in infancy, twin girls (normal), a normal son, and a son ataxic at fourteen. The progeny of the nymphomaniac and her strabismic migrainous cousin were a ne'er-do-well, a periodical lunatic, a dipsomaniac daughter (who died of gastric cancer), deformed triplets who died at birth, an epileptic imbecile son, a hermaphrodite, a prostitute, a double monster born dead, a normal daughter, and a paranoiac son. The ne'er-do-well married his epistaxial cousin. The gouty son of the farmer's normal daughter married the hysteric daughter of the "Napoleon of Finance." They had a son born with unilateral asymmetry, a prostitute, dead triplets, a male sexual invert, a color-blind daughter, and a normal son. The color-blind daughter married a paranoiac grandson of the "Napoleon of Finance." The progeny

of the sexual invert and the versifier (who were soon divorced) were a periodical nymphomaniac who had some artistic and literary talent, and a son who died of gastric cancer. The scions of the ne'er-do-well and the epistaxic woman were a moral imbecile, a "bleeder," a stammering daughter who had uvula deformity, a deaf-mute cryptorchid, dead-born triplets, an infantile paralytic son, and dead-born quadruplets. The progeny of the paranoiac and his color-blind cousin were an exophthalmic daughter, an epileptic cryptorchid, a cleft-palated imbecile with a cloaca, dead-born quadruplets, an idiot boy, and a "bleeder."

Strong as seems the influence of heredity here, the environment produced has emphatically to be taken account. How far the influence of environment may extend has been shown by the experiments of Dareste<sup>15</sup> and E. C. Spitzka, embryologists, as they pointed out, "may imitate natural nerve teratologic by artificial procedures.

By wounding the embryonic and vascular areas of the chick's germ with a cataract needle, malformations are induced varying in intensity and character with the earliness of the injury and its precise extent. More delicate injuries produce less monstrous development. Partial varnishing or irregular heating of the egg-shell in particular results in anomalies comparable to microcephaly and cerebral asymmetry. This latter fact (showing the constancy of the injurious effect of so apparently slight an impression as the partial varnishing of a structure not connected with the embryo at all directly) suggests the line of research to be followed in determining the source of the maternal and other impressions acting on the germ. What delicate problems are to be solved in this connection may be inferred from the fact that eggs transported in railroad cars, and subjected to the vibration and repeated shocks of a railroad journey, are checked in development for several days. A more delicate molecular transmission during the maturation of the ovum, during its fertiliza-

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15. *Amer. Jour. of Psych. and Neuro.*, 1882-5.

tion, or finally during embryonic stages of the more complex and therefore more readily disturbed and distorted human germ, accounts for the disastrous effect of insanity, emotion, or other mental or physical shock of the parent on the offspring. The cause of many cerebral deformities exists in the germ prior to the appearance of the separate organs of the body. Artificial deformities produce analogous results because they imitate original germ defects, either by mechanical removal or by some other interference with a special part of the germ. Early involvement of the germ is shown by the fact that somatic malformations in the hereditary psychoses often involve the body elsewhere than in the nervous axis. The stigmata of heredity—defective development of the urogenital system, deformities in the face, skull, irregular growth of the teeth, misshapen ears and limbs—owe their grave significance to this fact. Like deformities of the brain, these anomalies are also more marked and constant with the lower forms of the systematized perversions of the mind than the higher. It is easy from these results to understand how far and how the nervous system has its part in the disorders of general development. It can easily be understood how the individuals who present most deformities are equally those who suffer from most decided disorders of the nervous system." As already indicated, these disorders may be transformed into each other and coexist as well.

(To be continued.)

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# THE CAUSATIVE FORCES OF MENTAL DEFICIENCY.

By H. C. KEHOE, M. D.,

Superintendent Kentucky Institution for

Feeble-Minded Children.\*

Frankfort, Ky.

IN the discussion of this subject we enter an endless avenue to a shoreless ocean.

It has so many angles and intricate detail that we are estopped from lack of time and fear of verbosity to do justice to the subject.

Beginning with the curse of alcohol we are at the very threshold of shackled and abnormal brain development. In the immediate family we see in the offspring the idiot and the feeble-minded, especially if the parents are mentally and physically weak. If strong and vigorous mentally and physically we see insanity in all its various manifestations cropping out in the second generation, and so on down the line in each succeeding generation ad infinitum.

Tea and coffee drinkers become neurasthenics and often die of arterio-sclerosis and paralysis. The children of such parents fill the hospitals for the insane with hysterical subjects in all its various manifestations.

Those addicted to the drug habit destroy themselves and go to our insane hospitals a pitiable and deplorable army of incurables.

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\*Read before meeting of Alienists and Neurologists, July 13th to 17th, Chicago.



Those who have traveled the primrose path and wound up with syphilis, and then marry a trusting and innocent maiden, reck not of the consequences to human life and our social fabric. Infantile paralysis, insanity, idiocy and feeble-minded are the legacy they leave to posterity, and in addition locomotor ataxia.

The disciples of chronic gonorrhea are more numerous and even more to be dreaded than the syphilitic. The young and innocent wives of these ghoulish triflers with human life soon give evidence of salpingitis, ovaritis and a long train of ills connected with the female generative organs that have caused more deaths than all the wars in christendom and from the loins of these master pillagers of human life come the sycotic children destined to reach an early grave through the feeble-minded institutions of the various states. Those of strong parentage live on infested with all the ills that human flesh is heir to, such as contagious diseases, catarrh, goitre, tumors, caries, leucorrhoea, tabes dorsalis, throat and lung troubles and cancer.

The religio-fanatic is another source of plebian deserving no little mention in the category of causative insanity and feeble-mindedness. We mean nothing derogatory to the followers of the meek and lowly Nazarene in these remarks. Far be it from us to insult the intelligence of those who worship God according to the dictates of their own conscience, but we refer to the ranters and vacillating pulpiteers of small caliber and little gumption. From these pious and regenerated and benighted ilk come misfortune in breeding resulting in the insane and feeble-minded. Our state institutions attest the truth of these statements.

Heredity is the hand-maid in all cases tending toward abnormality, and trickling down through the ages it has intermingled and added to all the vicious habits of the individual its quota of strange phenomena.

Succinctly stated these are some of the causative forces of mental deficiency and to suggest a plan to lessen these evils by an act of the Legislature is fraught with great opposition because of the make-up of the average

solons, together with the added expense in providing means in the different states to adequately care for the army of the now unrestrained who would come within the per-view of such newly enacted laws.

However, a few suggestions:

FIRST. Establishment of inebriate asylums connected with all state hospitals, trial by jury and forced confinement of all drunkards till such time as they are cured and safe subjects to mingle with the social world.

SECOND. The prohibiting of marriage among syphilitics and those with chronic gonorrhea under heavy penalty.

THIRD. Laws requiring custodial care, segregation and sterilization of all the feeble-minded before turning them back to society.

I believe most states now have laws governing marriage among the feeble-minded and mentally deranged.

The enforcement of these laws should curtail the growing evils now resulting in the filling of our institutions with the abnormal, including the criminal, the insane and feeble-minded.

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## AN EMASCULATED HOMO-SEXUAL.

HIS ANTECEDENT AND POST-OPERATIVE LIFE.

BY CHAS. H. HUGHES, M. D.,

St. Louis.

**F**OUR years ago, a gentleman of ordinary moral, intellectual and physical parts and psychic impulsions, save for the affliction which distinguished him, voluntarily came into our professional care. He was, by occupation, a professional bookkeeper of ability and recognized as an expert in his line in the adjusting of accounts of business firms and estates.

He had ordinarily a fair degree of control of his abnormal passionate propensity, especially under judicious and extremely heroic bromide management, fruit and vegetable, (meat prohibited diet, oysters and fish excluded), predigested food, malted cereals, etc., and ptomaine elimination, i.e., two complete evacuations under salol, protoiodid of mercury or podophyllin and other laxatives, substituting or alternating. His bowels were kept free of ptomaines and flatus so that the least possible amount of irritation might proceed from them to genitals or brain. Tonic electrizations from spine to genitalia and tranquilizing brain electro seances were likewise employed.

But the patient got tired of being under treatment, he being an intelligent reading man, and solicited a radical operation of which he had learned and solicited the more certainly effective surgical operation. He had been much mortified in his relation with certain employers to whom, through his morbidly erotic inclinations and perverse

unguarded displays, the higher inhibitions of his cerebrum having inopportunely failed him at times, to his great chagrin and mortification and with loss of several valuable positions.

It was pitiful to see and hear this unfortunately and unhappily dowered gentleman of otherwise good and proper instincts confess his painful, and to the world in general abhorrent, unnatural propensity to erotopathic evil.

The clergy and the courts have classed this *lapsus libido perversus* as sin against "Nature," as Alexander Smith has put into the mouth of the fallen virgin—"Oh! if she had proclivity to sin—Nature may leer behind a gracious mask," etc.

Hoping to stop erections and thereby to probably make a salutary psychic impression without positive asexualization, for he was (except for his sexual perversion) a splendid man who might become, if normal, the father of splendid children, this unfortunate man was operated on. The first operation, taken with the consent, but not with the counsel of a neurologist, was an excision of the dorsales penis nerve. This procedure did not arrest the pervert erotism nor obliterate it. Vasectomy would have done better. The obliteration of other branches of the internal pubic nerve would have done better.

But the second operation a year or so after excised the testes entire.

The sequellae of this last surgical procedure were peculiar. It gave the gentleman tranquility and satisfaction. After the operation he lost his erotic inclinations towards his own sex but showed a social inclination towards asexualized ladies, one of his imperative and special requests of me, being that I might find and introduce to him a lady who had been oophorectomised for a similar *contraire sexuel empfindung*. It is a most singular contrary sexual instinct, as Krafft-Ebing and others have further detailed.

Dr. Riddle\* at the last meeting, in a most interesting paper before the American Academy of Medicine, detail-

\*"The Biological Basis and Experimental Control of Sex." Oscar Riddle, Ph. D., The Carnegie Institution, Station for Experimental Evolution, Cold Spring Harbor, L. I., N. Y. The Annual Address before the American Academy of Medicine at Atlantic, June 14th, 1914.

ing his laboratory experiment on birds, showed it to exist also in pigeons.

This gentleman was about 28 or 30 years old. In his youth he had reciprocal homo-sexual associates but he assured me that their mutual affection was mostly platonic. He was not given to lascivious bestiality. His peculiar sexual perversion distressed him much because of the damage it did to his business interests and the consciousness that he was abnormal and unnatural and so regarded by some of his associates, who knew him well.

He detailed more instances of his sexual perversion than it would be worth while to enumerate. He displayed his failing by following those about, whom he loved and seeking to be much and too continuously in their company and in inopportune, erotic handpressing, kissing and embracing, when not strongly and overmasteringly self-guarded. He, on one occasion, lost a very valuable position by a sudden, inopportune and ecstatic embrace of his superior at a most improper and inopportune time, even if the party had been a female and he a normal and accepted lover.

He was erotically pure in heart and by nature abhorred all lasciviousness. He was inclined to be exceedingly affectionate in his demeanor toward me so that I had to be particularly matter of fact and brief in my interviews with him when he would come for prescriptions, treatment or counsel, especially for the constant current galvanism of head to the lumbo-genital area, which I soon discovered it was wise therapeutics to discontinue.

The specially notable feature in the character of this case and the one which particularly justifies its addition to the considerably large number of similar cases now on record in the literature of psychic perversion, is the display of pronounced normal Platonic regard for the sex to whom he was rather averse than otherwise, while under the dominion of his perverted

homo-sexual passion, before the surgical procedure had accomplished asexualization.

There is no other case precisely like this to my knowledge in the records of sexual psychopathy.

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# THE FEEBLE-MINDED—THEIR ENVIRONMENT AND SOCIAL RELATION.\*

BY H. C. КЕНОЕ, M. D.,

Frankfort, Ky.

Superintendent Kentucky Institution for Feeble-Minded  
Children.

**S**TATISTICS show that 50% of children attending school are retardates, and evidently 25% of these are really feeble-minded. How many feeble-minded there are who never reach the school room will never be known, but they certainly add their quota to the sum total of social derelicts who tend to leave their blight and contaminate the stream of human endeavor toward a higher civilization.

We are making very little progress toward relieving this condition. Our eelymosinary institutions, kept up by state aid, are but the dumping ground for children of genteel poverty and the substrata of the nether world of hopeless degenerates.

My experience as Superintendent of a great state institution has taught me to only look in the faces of these unfortunates to determine whether they are the offspring of the Alcoholics, Syphilitics, Sycotics, or Feeble-Minded.

From no matter which of these parents the child comes into the world his or her tendencies without restraint tend

toward a retrograde metamorphosis. No greater calamity could happen than to let the children of such parents go haphazard through life without custodial care, and yet if they were all provided for it would impoverish the American Nation.

Through eugenics we are beginning to see the light, and if taken hold of at once by the medical profession and all of those interested in stemming the tide of moral degeneracy yet four hundred years will be consumed before statistics will show much progress. This is lamentable but true.

We are now so busy contaminating the stream of human life that we will soon exist in a world *en masse* with feeble-minded, lunatics, cranks, neurasthenics, idiots, alcoholics, syphilitics, nerve-ends, and depraved and hopeless degenerates. To see an individual of natural poise, normal mind, and healthy body will be the exception and not the rule. Yet we boast of our great educational institutions and take cognizance of a world dotted with churches whose very steeples pierce the heavens, and we hear men prate about the world growing better. Ish ka bibble!

As Americans we boast of our patriotism and the wealth of a sun-kissed nation, while our markets groan beneath the burden of products sufficient to supply the nations of the world—yet as specimens of the *genus homo* we are becoming driveling idiots and a nation of nincompoops.

If half as much attention was given to the procreation of the human family as is now given to the raising of stock, we would soon electrify the world. As it is the wires are crossed in the human dynamo and we are daily being shocked by short-circuits in the human laboratory.

No more delicate piece of mechanism ever existed than the human brain. Its ability to appropriate materials from the human reservoir that makes the mind the most complex unit in all the world, comparable only to the superhuman and intangible ergo God.

Society in reality is carrying a purposeless equation, the state a hopeless burden, and posterity an ever present menace so long as segregation and sterilization are not

permitted as a means of mitigating the evil consequences of the feeble-minded.

Science is doing wonders for the mentally diseased as well as the psychoepileptic and the psychoneurasthenic, but the deficiency of the feeble-minded is irreparable, and but little aided by the Binet-Simon system or any other known method.

When the feeble-minded are allowed to follow unhindered the trend of their minds, moral training becomes a plaything, turpitude reigns supreme, the passions are allowed to run riot and the body politic is made the scape-goat in every community of an army of shiftless, senseless, soulless barnacles of human misfits, destined in the end to become the submerged majority. Should we not take a new sounding of human life and plant buoys along life's highway? As it is we are only marking time while the procession of derelicts are sowing seeds of degradation and shame that are filling our prisons with the abnormal and our state institutions with the insane and hopeless defective.

It is a known fact that cancerous children are the offspring of tubercular parents and vice-versa; that slobbering children—i. e., those with active salivary glands and defective minds are traceable to parents addicted to alcohol; that the defective with partial paralysis point unerringly to syphilitic progenitors; that the feeble-minded with the stooped shoulders and inherited dyscrasia are the children of like parents; while the blue eyed, delicate, pale children with glandular enlargements and lymphatic conditions are from sycotic parents. And no matter what group they all tend toward an early demise, and 75% die of tuberculosis in some form. It is appalling and the end is not yet.

Epileptics should have a special colony and not be associated with those of feeble mind, as the latter are great imitators and become affected by contagion or psychoepilepsy, while the former need special diet and entirely different treatment.

All feeble-minded are creatures of habit, and repetition fixes the habit, and punishment will not correct the con-

ditions once established in their minds. They have no pride of character and no sense of shame. To do evil is paramount by inheritance and increased by environment. They follow the path of least resistance, and are powerless to prevent the things upon which their mind is bent. It seems characteristic for the mind to grow weaker and passions stronger, and thus they become a prey to all the unmentionable evils of lust that can be enumerated. This is an awful indictment, but it is the plain and unvarnished truth. As Shakespeare says: "I could a tale unfold," if permitted, that would blanch the cheek and paralyze the unsophisticated.

This paper might be regarded as pessimistic by many of my hearers, but understand I am a Democrat, and therefore optimistic most of my time.

There is another side to this subject and those who are "talking to the galleries" are often in the foot-lights—telling fairy-stories of wonderful accomplishments. The truth is a few sporadic cases are helped and a little progress made from individual effort, but all too costly for verification.

To educate the feeble-minded is a dreary waste of time and a woeful waste of money, as they will forget as much in recess as they are taught during class hours. They learn to read and write a little and then forget it all unless kept constantly repeating. Those who have mechanism can do better in manual training or basket making. Sustained effort is impossible and they fall 50% below normal in all work.

They are all gormandizers and can eat a yard of microbes a minute and live in an atmosphere surcharged with foul odors and carbon-dioxide. They are not susceptible to contagion and can swallow most poisons with impunity. They are forced into a bath and unalterably opposed to cleanliness, and nine-tenths of them are natural liars and born thieves. They are simply pawns in human form and subject always to a higher power of intellect.

'Tis said a fool and a cipher are never in danger, and these unfortunate creatures are certainly of the tribe of Ishmael, and, in an immaterial way, will be cared for as

was the Scion of Hager and Abraham of old, and this part we can well leave to Him "Who doeth all things well." But just so long as they infest the earth and are wont to multiply and replenish they should, in a material sense, be subject to custodial care, segregation and sterilization lest we be lost as a nation both mentally, physically, socially and financially.

"Out of the soil—the lily;

Out of the ooze—the pearl."

Back to the vomit—the dog—

Back to the wallow—the hog.

So with the feeble-minded.

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## DEAD MEN DO TELL TALES.

By

DAVINA WATERSON.

ONCE upon a time, many a murderer was acquitted and many an innocent man hanged, because, to all appearances, they had or had not, been guilty of the crime.

But today an assassin has to reckon with the physicist, the chemist and the Rontgenologist, who start off on his track and force him to face damning, dispassionate scientific facts, but, with equal zeal bring these facts to clear a miserable man protesting his innocence, yet condemned beforehand by circumstantial evidence. Now, if a man is found walking quickly away from the place where a body has been found, and if the man has blood stains on him and on his pocket knife, naturally he is the murderer, so why spend a fee on an expert to prove the contrary?

Just such a case occurred in France. It was no use the man saying he had poached a rabbit, made a stew and burnt the skin and bones to avoid possible detection. He was condemned because the bloodstains and a known hatred for the victim shouted guilty! Then came along a physicist and showed the blood to be that of a rabbit, for, by the unique methods of two professors, E. T. Reichert and A. P. Brown, it can be determined to what species of animal, bird or reptile the blood belongs, since every species has distinct crystallization. Experts claim to distinguish differences of nationality and it is no illogical optimism to state that their claim to prove consanguinity may prove to be correct. If Jacob had been able to set a scientist to work on Joseph's coat the brethren would have



been confounded and Reuben, the connivor at deliverance, extra triumphant. Ever since those days the malignant have tried to fix guilt on innocence by spattering the blood of animals on clothes or weapons, but it never can happen again in civilized countries.

A little while ago a mother murdered her little girl in a lonely spot and "murder by person or persons unknown" was the verdict. A suspicious neighbor, who disliked the woman, took up the search privately and one day found a blood-stained knife near the house. "Why, that's the knife I used to kill a rabbit last week. I put it there in the wall meaning to clean it," cried the mother.

Submitted to an expert, the knife told of human blood, blood shed a year ago, and the terrified mother confessed her guilt. It is now over seven years since an Italian physicist, A. Lechanarzo, perfected the method of determining the age of a bloodspot. Would Rizzio's blood, said to be renewed every year on the floor of Holyrood Palace, stand an investigation? I think the tourist, enjoying the induced thrill of horror, would rather the scientist kept out of the way!

Mutilation of a body is not always effectual, and has occasionally, by its very dexterity, convicted the real offender. A murderous butcher will, naturally, cut up his victim with precision, and a medical student or surgeon would do it in a skillful fashion. The mutilations by Jack the Ripper showed him to have considerable anatomical knowledge.

A physical defect, engendered by disease or habit, often guides an expert in detection, but when a man cuts his old father into 130 pieces and buries these separately in garden and field he naturally expects to lull suspicion, especially when he daily expresses surprise that the aged parent does not return from Paris.

Six months after the deed a farm hand dug up a hand, no clue apparently, except that a friend, a medico-legal expert, took note of certain callosities in the palm, rather peculiar ones, and soon after begged of the son his father's stick as a memento. The curiously carved knob exactly

fitted the skeleton hand and the son was convicted of the murder. In the same way the body of a mutilated nun was identified by the callosities on the knees produced by constant kneeling; and Sir William Fergusson proved the identity of Livingstone (though it was hardly doubted) by showing an old ununited fracture in the left humerus. The structural deformations induced by occupation, often lead to the identification of a murdered man when he has been, say, a tailor, a barber or a shoemaker, while the condition of the teeth may show the victim to have been a printer or a potter, owing to the plumbism engendered.

Now, if a man is found shot through the head and with a pistol in his hand, what more rational than a verdict of suicide? But in real suicide the weapon is held so firmly that force is required to dislodge it. It seems as if the muscular spasm persists until rigor mortis occurs and sets it. Several experts have tried to make the hand of a corpse grip a weapon, but have never succeeded and their knowledge of this fact has often opened the avenue to detection of murder. Again, if you found your grandfather on the floor with a rope round his neck and the other end dangling from a nail in the wall, certainly you would say that he had hanged himself and his weight had broken the rope.

But the medico-legalist is as well up in knots as a sailor and knows a suicide will tie them one way, a murderer another. There was a case in Paris of a grandfather who had, apparently, hung himself in the manner described. But he had not tied the rope, declared the expert, and, in face of such uncanny knowledge, two neighbors confessed they had from their window seen the son-in-law strangle his father and arrange the other piece of rope.

A would-be murderer might advantageously study physiology, i.e. the physiological action of certain substances on the human body and might also, if he intends hiding the corpse, read concerning flora and fauna in the dead. The advice of Moquin-Tandon, sometime professor of Natural History in Paris University, was often asked by legal doctors because he had made a special study of the latter. The body of a little girl was found tightly packed up in a soap box,

and the mother, when found in another city, tried to fix the crime on a friend and as happening two months ago. It was then the end of July. By a careful study of the flies and larvae found in the remains, the expert proved the body to have been in the box since the preceding February and the mother confessed to having killed the child on February 27th. In the same way the examination of the larvae on the body of a child hidden up a chimney proved death to have taken place fully two years previously, and this verdict led to the acquittal of a suspected person. There are certain fauna which begin their work soon after death, then disappear to give place to others, but the succession is invariable and marks time for the scientist.

The different physiologic action of fire on a dead body and a living one was not known by the man who rushed frantically to his neighbors, saying he had found his wife lying across a chair by the fire badly burned from waist to knees and also on the neck. Unfortunately for him the doctor pointed out that burns made before death contained serum and there was no vesication (thin serous fluid under the skin), moreover, the fire could not have passed from waist to throat. The man then confessed to strangling his wife and afterwards setting fire to her.

The student who murdered his aged uncle by drowning had clearly not taken chemistry in his studies or he would not have been so confounded when brought to justice. He had wound nine yards of thick lead tubing round the body to sink it. Surely enough? But a little knowledge of chemistry would have made him make a few incisions for the escape of natural gases, as these brought up the corpse in spite of the heavy weight.

Lynx-eyed Science is rendering it ever more difficult to dispose of a body or hide the crime of murder. Human blood and hair and bones have characteristics distinctly their own. The "gory knife" of melodrama is no longer sufficient to fix a crime, and even if, as seems possible, the penny novelettist should kill his hero with radium, why, the physicist would come along with the electroscope and with it absolutely refute or confirm the accusation.

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THE INFLUENCE OF SUBTLE AND UNDETER-  
MINED FORCES IN THE ESTABLISHMENT,  
DEVELOPMENT AND MAINTENANCE OF  
RACIAL CHARACTERISTICS.\*

BY E. S. GOODHUE, M. D., LL. D.

*"There is no chance in results."*—Emerson.

**W**HY are children extremely susceptible to many diseases which an adult will hardly acquire on full exposure? So true is this that we have books treating of children's diseases. Nature immunizes or renders susceptible, as the case may be.

And the healthiest subject may contract small-pox, yellow fever, dengue or many of the other diseases which require a prepared soil; a specific soil not necessarily the result of deterioration, temporary or permanent.

In a rare little monograph bound in boards, and published in China several years ago, James Cantlie makes some observations and suggestions of great value to students not only of leprosy but of evolution.

He recognizes the anomalous diffusion of leprosy, its so-called freaks; its innocuous simulation, but he continues to believe in its contagious nature. He is convinced of this by what he has actually seen in his large experience with leper patients, and as it is with all of us who have seen much of the disease, nothing theoretical can displace the abiding conviction based upon clinical observation.

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\*Continued from May number, 1914, *Alienist and Neurologist*.

"This tendency to leprosy," says Mr. Cantlie, "can only mean that the children of leper parents have a diathesis; some peculiarity in tissue development, some apparent anatomic structures of the nature of sufferers from congenital syphilis.

"All that can be said of this, is, that the developmental lesion has never been noticed or made out. A very important point this would be, and worth investigating. Had the leper a birth-stamp upon him, persons presenting it could be guarded against, could be segregated, and there would be hope of arresting the spread of the disease. Is there a leprous diathesis, showing irregularities in anatomic structure, occurring with sufficient frequency whereby a person of leprous diathesis can be known?"

There is certainly if not a "diathesis" (which after all is a much abused word,) a dyscrasia; a biologic or peripheral susceptibility to inoculation by the germ of leprosy. And this condition supplies the media in which the germs of leprosy will thrive; media we have become acquainted with in the recent investigations of Clegg and Currie of Hawaii.

But the results of such investigations only confirm the theory that immunity is due to some subtle and undetermined influences inherent and intrinsic in the individual, for with all the success which is met with in cultures of the leper germ outside of the body of man, and despite the fact that a successful inoculation has probably been made upon a monkey, the human organism remains resistant to successful artificial inoculation.

This still leaves the mode of transmission largely in the dark with a wide field for speculation.<sup>1</sup>

Cases are found in which exposure in the most adequate way has not infected the person concerned, who, a few years later, falls a victim to a slight contact.

It has been our error, I think, to suppose these cases to be incubatory. There is no chance for freakish

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1. This was written previously to the appearance of Dr. W. J. Goodhue's report to the Hawaiian Board of Health, on the surgical cure of leprosy, June 13, 1913.



happening in the natural world; all is the result of cause and effect.

What seems mysterious is only not understood, and we shall find, no doubt, that when the germ of leprosy is properly introduced into suitable soil, it will grow according to specific laws.

It is not according to the working of other laws regulating exposure to disease, to suppose for a moment that the *bacillus leprae* will remain quiescent in the tissues for ten, twenty and even sixty years, as some authors state.

We are led to this conclusion by the difficulty, perhaps impossibility, although that is a large word—of implanting leprosy artificially in the human body.

We infer from this that what destroys the leper germ (and some other micro-organisms as well,) in the human body is a biologic force or influence rather than a chemical agent, since successful cultures are now made outside of the human organism.

This opinion is strengthened by the fact that bodily resistance is variable, that it is present at one stage and not at another.

The failure to recognize this probability gave rise to unreasonable hypotheses regarding the periods of incubation.

When a certain person, grossly exposed to disease, failed to acquire it, then at a subsequent period became a victim upon the slightest contact with the same disease, we said that he was infected at the first exposure and has had the disease, lo! these sixty years without giving any evidence thereof!

But it seems necessary that we should reach truth in a round-about way. We say that this acts so and so, drawing our inconclusive inference.

It is only a short time since we found out that yellow fever is spread by the mosquito. Before that we declared that its propagation was induced by *fomites*, yet thought some things very strange: for instance, that the disease did not spread in some directions, to



some countries, that it did not travel very far in lines of ordinary exposure.

But we were very sure that old clothes and personal contact infected us, and today some of us are just as sure that immunity is merely a matter of chemical action.

So long as undetermined forces are not taken into account in the investigation of this obscure matter, so long will men like Jonathan Hutchinson claim that leprosy is due to fish diet, or to some other factor linked by chance or necessity with the disease.

A narrow view will yield its distorted perspective; leprosy will be a form of syphilis, a manifestation of tuberculosis, a disease of cold countries, a disease of warm countries, a disease of the sea coasts, and in our effort to demonstrate every detail of the causation and transmission of leprosy and other diseases which are obscure, we shall find ourselves farther from solution than when we began. Unless, like philosophers and scientific evolutionists, we acknowledge that there is an undetermined force working through all benign and morbid processes, we shall never, I believe, advance very far in our researches regarding the nature of certain diseases or prove very successful in removing them.

That the immunity of disease is due to some undetermined and antagonistic factor in the individual, is plain; that this force is due to biologic prepossession is probable; that it may be actinic and chemical is possible. At any rate, it is beneficent and resistive, and in some respects at least, it is analogous to the external reactions which have heretofore prevented the artificial culture of certain micro-organisms outside of the body, and caused inoculations in the body to be abortive.

So far as leprosy is concerned, the recent investigations of Clegg and Currie have determined the conditions under which the leprosy bacillus thrives, and the media in which cultures may be made, but have added nothing to our knowledge regarding the immunity of particular individuals to the contagion of the disease.

The same rule applies to immunity in connection with other diseases which are extremely contagious for the majority of individuals, and it is quite a question whether immunity in the individual is not a condition of normal health in which resistive and beneficent forces of the economy are not in any way thwarted in their legitimate functioning.

At any rate, there is a growing inclination on the part of scientists as well as clinicians, to recognize that psychic impressions, however obscure, and so far as we are able to demonstrate, unprovoked by ordinary stimuli, are yet potent factors in biologic deviations; that such deviations may result in acquired characters and these in turn become congenital.

The whole result becomes an imperative Tendency, a determining and constructive as well as obstructive force, equal to almost any morbid invasion, provided it is assisted in its work by the proper influences outside of the body.

Any dwarfing or thwarting of such forces, intrinsic or extrinsic, any neutralization of the co-efficient, opens the door to morbid processes, gives the key to disease, and allows of degenerative changes which may ruin the individual as well as the race.

It is my opinion that the resistive forces and the co-ordination of intrinsic and extrinsic influences are impaired by the exposure of the body to disease. I believe that there are no grounds to assume that the impairment occurs first and that the invasion of disease follows.

The deterioration of nations and races of men has been laid to the prevalence among them of some diseases like malaria or hookworm. It may be granted that in the individual the existence of particular diseases like malaria and ankylostomiasis, is productive of destructive physical and biologic changes, but a compensatory process soon arises, and the autonomy of the race is saved by this provisional reaction.

It is claimed that Greece went down because of the prevalence of malaria within her borders. But we find that malaria had always existed in many sections of Greece; that it was not more extended or prevalent during her misfortunes than it had been while she was at the height of her glory. In fact, the disease bears no relation whatever to the historical events of the country.

After the decadence of the Greeks, due to various causes, there remained no individuals to redeem the race, even in districts where malaria did not prevail, and which malaria had not previously affected.

The decline of the Roman Empire has been attributed by several writers to the decadence of morals, to luxury, idleness, effeminacy among the people, but there seems to be no reasonable grounds for such an inference.

Leaving aside the question of war in its relation to national decadence, there are very strong grounds for the belief that these overwhelming waves of national decadence or deterioration are the result of cell changes, induced perhaps by admixture of ancestral characters, ending in a breaking down of the normal resistive forces of the race. The same destructive process occurs when the body of the individual receives or yields to the invasion of disease.

A concrete example is that of the rapid decrease in the Hawaiian race. It is non-resistant, succumbs readily to disease, and appears ill adapted to thrive under the requirements of civilization.

The race has accepted the language, dress, religion, political and social customs of the white man, but still retains with tenacious hold its faith in primitive traditions and superstitions.

As a race it has practically surrendered none of its barbaric prerogatives, although it is ostensibly Christianized and remade according to our modern conventions.

There are other dark-skinned races which apparently have given up few of their customs, but which are more susceptible to impression; more adaptive. These people are not disappearing like the Hawaiians. Syphilis,

measles and related diseases which were new to the Polynesians and from whose severity they were not protected by acquired immunity, did a great deal to deteriorate individuals, but could not be a permanent factor in the annihilative process.

The presence of such diseases has caused temporary decimation in all peoples, but the results are not permanent and are quite compatible with racial persistence and adequacy.

The physical type of the Hawaiian has not been impaired. He is strong, muscular, in fact, unusually admirable in his physical development. He lives out of doors, and, on the whole, is less addicted than we are to habits prejudicial to his animal life.

He may not be as cleanly, or as careful about airing his house as we are, or as particular in his dress, but he avoids those things which induce the nervous strain to which we are subjected.

The Hawaiian individual may live to be over a hundred years old, and he commonly passes three-score years and ten. Clearly it is not disease which gives us our doleful figures.

Whatever the cause may be, it is certainly obscure, and in virtue of its bearing upon important subjects, should not be attributed to random accidents like the introduction of syphilis or other diseases, to the effects of clothing, the adoption of a new religion or to any other incidental fact to which it cannot bear much relation.

Civilization as an external influence upon races has not perceptibly altered their predominant characteristics, and all that civilization means to a primitive race need not destroy it.

Indeed the most progressive and vital races, once primitive, have grown more predominant with their improvement.

It is fairly well established that the decrease in the population of these islands of Hawaii began long before civilization had reached our shores. That the cause lies far back is certain, and it is quite likely to be true

that it is due to some subtle alteration of vital or biologic processes; a stimulation or an inhibition uncorrected so far by any extraneous influences.

The Hawaiian racial cell is not prolific, and its vital tendency, instead of being dominant, is inclined to abort; to amalgamate and present its weaker biologic characters for combination with the similar elements of other racial cells, resulting in a product a "little less resistive than the previous stock."

The nature of this negative force cannot be accurately examined, but there is a respectable presumption that it is vital in character, continuous, and has existed for a long period of time.

All the forces bearing upon the matter are so various, so far-reaching, so distributive that it is difficult to say what may be the final result of the evident tendency which is towards the termination of the race.

This accidental limitation, this established entity to whose career intrinsic bounds appear to be already set, may be compared to the normal biologic limitations of plant life.

The apple tree lives a certain period. Individual trees may live longer or not so long, but this does not alter the fact that there is a permanent relative difference between the expectation of life of an apple tree and that of an oak. This is not due to any temporary influence, but to a cell direction, unalterable, at least, in the present stage of development.

We see the same influence in families noted for good health, some of which are long-lived and others "short-lived."

So common is this that insurance companies to an extent base their expectation of life of the individual upon the record of his ancestors.

We observe the tendency in races in which, however, it is a fixed and dependable force, except in a few instances where there appears to be an unaccountable and irremediable deviation.



In the Hawaiian we have observed the effects of the accidental deviation and, having no data in regard to causation, we find reasons for what we call a strange fatality.

When in the individual, the period of greatest cell activity has gone by, he ages, his powers wane, he shows marks of decay, and finally he succumbs to the destructive influences of gradual degeneration. How immaturity passes into adult life and old age leads to the grave, is explained by the eloquent physiologist, but we know so little about the undetermined and subtle forces which induce the organism to wear out and fall into absolute disuse, that we are perpetually wondering if men do really grow old; if, after all, the gradual decadence in physical and mental powers is not an illusion. We are annoyed if it is even hinted that old age has any effect upon our ability to reason and deduct, and we set to work at once to prove that all the creative efforts of man were made during the period of senility.

We attribute the natural exhaustion of the vital cell force—which was expended for a definite purpose and has accomplished that purpose—to extraneous factors like errors of diet, beer drinking, arterial sclerosis, or some other influence not of itself sufficient to alter normal tendencies in even one individual.

The dissipated sensualist, the glutton, the drunkard with a biologic bias to continuance, lives to be a hundred years old, and the careful hygienist falls a prey to disease in early life.

We wonder if man's life cannot be prolonged indefinitely, and prate of elixirs.

Yet the tree or the dog which runs its completed cycle before our eyes serves us no lesson.

We acknowledge that certain biologic laws enforce limits of existence, that when the tree has lived as long as other trees of its genus, it may die. We teach our children that the dog lives so long, and the horse so long, and the elephant.

The planets, too, have their day, and we are well aware that the moon has gone through its pleasant



youth, enjoyed its maturity, and is now cold and dead; that stage by stage our earth is passing along to a period when it will suffer no further mutations.

So may not races, like other entities dependent upon cell growth, come to a biological end? May they not wear out like the individual, when they have reached the outward boundaries set by the undetermined impulse which tossed them into the world's arena?

Unlike the records upon which our knowledge of geological modifications are based, those relating to the beginnings of races of mankind, are few and unreliable.

In the long time acceptance of the literal story of the Garden of Eden, we have hardly been in the right spirit to receive a more reasonable explanation of the origin of man on earth.

An omnipotent God created man in his image and, for purposes of his own, presumably eschatological, placed him under rigid physical and moral limitations, and at last, punished him for his expected disobedience with the curse of death.

This left no room for the exercise of reason, and as shown later in the enforcements of anthropological theology, no opportunity for the play of imagination.

But all the while, even in the dark ages of the world, silent, undetermined forces have been working out their salvation. Though thwarted by our acts of ignorance and retarded by hindrances we have placed in the way, the blessed Tendency has gone on its road rejoicing.

Busy and faithful servants of life, these influences for good have woven their threads into our complex fabric, passing mysterious shuttles ages long into the warp and woof of our existence, intent upon the accomplishment of a design which to us has appeared in the form of myriad variations and entanglements.

But there has been no faltering and confusion, no undoing in the expansive processes of evolution, only one grand movement towards God and a better type of man.

Recognizing the influence of subtle and undetermined forces in the establishment, development and maintenance of racial characteristics, we may reasonably assume that thwarted cell growth, racial degeneration, and anomalous morbid reactions in the individual are due to some interference with the normal action of such forces as are concerned in the establishment, development and maintenance of individual and racial identity.

That this explanation of the implantation and persistence of disease in the human organism has not been advanced by pathologists, is no reason why it may not be correct, especially as our therapeutic resources have often been disappointing and inadequate.

Pathological findings, the results of investigations into obscure mental diseases, recent discoveries regarding immunity and chemical reactions in the body, whatever psychic phenomena are relevant—all go to prove the theory of a biologic basis for the presence and persistence of the disease in man.

This may also explain why crude, semi-religious theologies, pseudo-scientific theories, movements based upon a hodge-podge of science, theology, esoteric philosophies and nonsense, have been eagerly accepted as a means of removing disease, and why psycho-therapy in the hands of the untrained even, has had its measure of success.

A union of the religious with the medico-psychic, of theology with medicine, while perhaps unscientific and a reversion to an ancient compact which was not a success, appeals to a large class of men and women, and in the hands of men like Doctors Putnam and Cabot, may do a great deal of good, not only by displacing less efficacious systems of therapeusis, but in relieving many burdened sick of their distresses.

Doctor Richard C. Cabot of Harvard has explained "Psychotherapy" in a paper from which I make a few selections:

"Psychotherapy means the attempt to help the sick through mental, moral and spiritual methods. Scientific

rational mind cure (mind cure is the English for psychotherapy) has been used in America in a systematic way only within the past decade. I have defined psychotherapy as the attempt to help the sick by mental, moral or spiritual methods. These methods overlap and blend into each other, indeed I think it proven beyond a doubt that it is unwise to try to separate them, unwise, that is, to try to distinguish a person's mind from his soul, or his intellect from his moral life, by any hard-and-fast lines. We must appeal to the whole personality if we are successful in psychotherapy. Realizing, as we do, that mental activity merges continually into moral and religious activity, we have not hesitated here in America to associate the man of science and the man of religion—doctor and minister—in a most favorable form of co-operation for the good of the sick.

"Out of this association has come what is known as the Emmanuel Movement of Boston.

"But we have also realized that the mental, moral and spiritual health of the individual, through which we hope to influence his bodily condition, depends upon his work, and upon the satisfaction he gets out of it. We have realized, furthermore, that the health of the mind is largely influenced by home conditions, by personal friendships, by family affections, by all that goes on between man and man, as well as by work, and by more distinctively intellectual and religious influence. Hence, the American type of psychotherapy busies itself not only with the ideas that are floating through the patient's head, not only with his thoughts, his worries, his griefs, but also with the personal relations, with his friendships, his love affairs, his domestic and family affections.

"It is becoming increasingly clear that for the best results in psychotherapy we must have the co-operation not only of the minister and doctor, but of the minister, doctor and social worker.

"There is no good reason to suppose that psychotherapy can, by itself, reform character or cure disease.

"It may aid in the reconstruction of character, and it can do a great deal towards curing disease of the type known to the physician as functional disease—disease, that is, in which there has been no widespread destruction of the organs or tissues of the body such as occurs in organic maladies.

"Functional disease—the type for which psychotherapy is especially important—means all that results from the unsatisfactory working, the perverted function of one or more organs.

"If your heart or stomach misbehaves, that is functional disease, provided always that there is present no degenerative process. Mental treatment does not cure cancer, Bright's disease, valvular heart disease, consumption, or any of the stubborn, long standing enemies of that type.

"But there is a great deal of hope in sight for the amelioration or cure of that great host of so-called functional diseases which make up not less than two-fifths (probably more nearly one-half) of all the cases of illness which the ordinary practitioner sees.

"Psychotherapy has its place, not instead of, but by the side of chemical and physical methods."

Doctor J. J. Putnam, also of Harvard, speaking of the same subject says:

"Familiar as we are with the physical world about us, impressed by the importance of the laws in which its phenomena are expressed—we are only too ready to believe or to feel—that it must be in terms of these 'natural laws' that all truth is to be eventually expressed. People talk of the life of the spirit and usually agree that this conception must have validity of some sort.

"It may be a matter of indifference to the community how scientists feel about these matters, but it is of vital consequence how physicians look upon them. For their work calls them to deal with persons thrilling with hopes and fears and doubts, brought face to face with the problems of the meaning of sickness and death.

"If the universe is, in some sense, the expression of a purpose, of the will of a moral personality, it is the duty of physicians to know it. \* \* \* Even good physical health is to be promoted through harmonious thoughts, and a sense of moral and intellectual inspiration contributes an influence of real value towards the cure of physical ailments. The more deeply we probe the matter the more evidence we find that impressions and even thoughts tend to reverberate through every function of the body. In proceeding to this task it is important that we should have, if it is possible, a conception of human life that is at once inspiring and responsive to the demands of reason and the best way to ascertain these demands is to consider what attitude the representatives of the different departments of science hold with reference to the problem of consciousness."

But we may well be cautious about accepting "psychotherapeutic" treatment as administered by clergymen and other laymen; persons who are not professionally familiar with all the protean manifestations of disease, and who cannot be safe advisors of those who stand in need of a physician.

It may be that the average physician lacks a necessary knowledge of psychology, and that the educated minister is well trained in this branch of learning, but, even so, the physician engaged in actual practice has a rich experience and a shrewd sense of insight which fit him for his responsible duties, and make him a safer advisor of the sick than any minister can be.

No doubt the "courses of reading" in "sound psychology, sound medicine and sound religion" have their place, particularly when the psychology is taught by the psychologist, the medicine by a physician and the religion by a theologian.

A thorough course in biology and related subjects, a full knowledge so far as it can be acquired by a study of evolutionary processes and tendencies, would help greatly towards the intelligent amelioration of the sick.



It would place prevention first, however, and make that the aim, not only of the physician, but of the patient himself.

All this tide of literature, hopeful, cheering, optimistic, such as the books of Trine and the sermons of Dole, are educative and helpful because encouraging. They tend to lift one's thought above the cares and worries of life; to make one less self-centered and selfish, and to induce faith in the power of aiding Forces and a directing Cause. Many intelligent and educated men now recognize our dependence as human beings upon and our relation to the vital Tendency which inheres in life, and are urging an acquiescent attitude towards those forces which are leading us onward and upward to a completely developed self.

The fact that a person afflicted with disease is required to place himself in the path of his own beneficent forces; that he exercise a complacent faith in some Force he believes will assist him to physical betterment; that he make it his duty to ignore unpleasant sensations, and as far as possible, to look upon the cheerful side of life, is in itself enough to determine the full action of whatever influences are inherent in the individual, and again place him in the way of such forces, internal and external, as will correct diseases of a functional nature, and re-establish the normal action of the organs of the body.

This voluntary attitude, assumed as a habit, will, to a large extent, prevent the invasion of disease of a particular nature; it may save the individual from the contraction of specific contagion.

Some such influence is exerted upon the patient who comes to the psychotherapist, the suggestopathist, the Christian Scientist, and sometimes to the physician himself, with ills which demand no medical treatment whatever but which are serious and if untreated may end disastrously.

In each case the treatment is often blind and unintelligent, administered without knowledge of or due



consideration for the psychic and physical entities involved Quacks and charlatans of all kinds have recognized the value of this cosmic hypnotism, and made use of it in their appeals to human needs and weakness.

And the "New Thought" movement, with a great deal of truth in its philosophy, has urged acquiescence, surrender of the will to the subtle influence of "the air," assuring its disciples that such an attitude would "attune them to the harmonies of the universe."

These ecstasies have a language of their own, they inspire the loftier sentiment, no doubt, but for practical work-a-day purposes they remain too unsubstantial and visionary. You cannot pin them down.

They avoid and evade analysis, and like the evanescent tints of morning, or the burst of harmonious sound borne to our ears by some errant wave of air, stir our emotion but still do not give us time to really enjoy.

To base serious and dignified action or even to build a philosophy of life upon mere platitudes of this nature would be like starting out of a pleasant, sheltered port in a boat unprovided with sails or oars or other means of propulsion, trusting that with faith enough we should be able to cross the wide expanse of treacherous sea.

Let us see what Mr. Lathbury, one of the sanest of these lovable enthusiasts, has to say in his really helpful book, entitled "The Balanced Life":

"The ideal life is a profound harmony of all the faculties and organs. \* \* \* Investigation reveals man's rhythmical and musical structure even in virgin conditions. \* \* \* He is an assemblage of capacities and intuitions that are actually symphonic, a harp of myriad chords keyed to the central. He is the poetry and architecture of love. The human intent is exquisitely poised and proportioned; within it the spheres rotate and sing; within it are earth and heaven, but hell is not intrinsically there, and when present it is a possession of aberration. Congenitally it shelters all that is beautiful and wholesome in the wide domain of nature, that enchanting prelude of which man is the song. Its ranked

powers are shining and all abreast: it has a range of affinities that touches the entire universe with unutterable adaptation."

To one out of sympathy with the earnest purpose and really helpful thinking of this philosopher, such language may sound like mere rhapsody, or the fluent outpourings of insane exaltation.

But it is neither, although as a practical guide to conduct—which it claims to be for those who are in distress of body and mind—it is altogether useless. The substance of the whole book could be expressed by a scientist in half a dozen lines.

These pleasant sentiments come to our ears much like the notes of some musical composition played by a skillful performer, but no more: an inspirational uplift to the emotions, but transient and ordinarily inapplicable.

It has been found that concentrated foods alone fail to nourish, their virtue lies in the waste which goes with them. So here.

If one definite thing more than another has been stated in this book, it is that "hell" or disease is not present in the body, a statement which destroys much of the sufficiency of any mental attitude recommended as a curative measure.

A chapter entitled "The Rhythm of the Universe" is even more intangible, although throughout are some seasoned truths:

"Sad it is to behold about as many richly equipped persons whose acts are entirely at variance with their intuitions. \* \* \*

"Where there is power there must be age and experience, and the sixties have all the forties and twenties in them. \* \* \*

"Our glory or shame is published in the carriage of the figure, the language of the face, and the quality of the speech. \* \* \*

"We should not complain of trials and temptations. \* \* \* A genuine man does not want to cut him-

self loose from his stock. \* \* \* If the blunderers and ingrate vex you, keep sweet, chide not, lend-a-hand. \* \* \*

"The highest men and women are direct, truthful and submissive. \* \* \*

"In earnest hours we are borne on billows of tendency into the wideness of life, and are surprised to find ourselves braver and better than we dreamed."

All such teaching, however unadapted to practical use for the correction of physical, mental, moral, social and religious evils in the world, is still eagerly seized upon by a class of unmoored persons who require no reasonable basis for any thought which pleasurably stirs their feeling. It is their mood, if not their nature, to take agreeable things for granted.

Incoherence even can not disturb their serene acceptance of what they regard as "new truths," unsuitable and obscure words, coined phrases, scientific misapplications, often literary stretches of verbiage as devoid of living meaning as the sands of the desert are of life—all are taken up with an avidity which would be sad were it not in some degree helpful to the psychic type it influences.

I have no fault to find with the central idea which, unfortunately, in the most of this philosophy is lost sight of, and were the matter not made a religion, a system of therapeusis, a practical philosophy of life for the guidance of all men into the paths of health and righteousness, we should acknowledge that the intelligible portion of it at least, has its use in this world of varied necessities.

Above the reeking luxuriance of tropical growth, rise the *ignis fatuus* ghosts which wave and flutter their fluctuating and unstable bodies, and light the gloom of the swamp.

So above the abundant truths of physical science, ever rise and flutter the psychic essences which perhaps have their part to do in brightening the shadows that incline to lower about the evidences of material fact.

We cannot all see truth in the same way. Here are the idealists, the transcendalists, the spiritualists, mystics, religious enthusiasts, esoteric philosophers; we have the oversoul, the over and under-tones, the atom, the infinitesimal, the unknown quantity, the hidden Force, the Something Is—all evidences of "things not seen."

And what perhaps has directly yielded us the by-products of well based truth, are the philosophical speculations, ancient and modern, reasonable, and quite in a line with what evolutionists recognize as the substantial biologic forces of life.

Goodness and love mould the form into their own image, said Swedenborg. Charles Wagner voices this in "The lack of equilibrium is the great individual social evil."

"Everything that a man undertakes," says Goethe, "ought to spring from a union of all his faculties."

In "Festus" we have:

"Let each man think himself an act of God,  
His mind a thought, his life a breath of God."

While our own Lowell wrote:

"We see but half the causes of our deeds,  
Seeking them wholly in our outer life,  
And heedless of the encircling spirit world,  
Which, though unseen, is felt and sows in us  
All germs of pure and world-wide purposes."

As a last quotation we find in the "Karma Yoga of Swat Vivekanda" what is good doctrine for evolutionists:

"We see the whole universe working. For what? For salvation, for liberty, consciously or unconsciously, from the atom to the highest being; working for that one end."

Finally, recognizing the existence of subtle, potent and undetermined factors controlling out physical progress through life, and with a frank acknowledgment of our present inability to define and classify such factors, we should be far on the way not only to a better understanding of some obscure pathological conditions now called psychic, and a wiser employment of more adequate methods for their amelioration, but actually hold in our

hands means for the removal of many of the evils which afflict the world, and at present appear to lie beyond our power to correct.

Perhaps we shall soon know more about the nature of what we term undetermined forces, and learn just how to join our powers with theirs in the great work of racial development, and the uniform progression of the individual onward and upward.

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## PARTIAL ANALYSIS OF AN ETHER ANESTHESIA DREAM.\*

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THE partial analysis of a dream which follows was thought worth while presenting to this Society on account of the following special features: It was the product of an ether anesthesia. The dreamer was a physician, just becoming acquainted with the psycho-analytic method. The dream caused a depression which persisted for several days and which recurred whenever the dream was recalled to memory. On analysis the dream was found to be extremely significant in the life of the dreamer and with its interpretation the depression disappeared.

The dreamer is a physician who offered himself as a subject whereby he might become acquainted with the technique of dream interpretation. He was able to recall two dreams, one which had occurred the night before and one which dated about five years back. When he mentioned the latter dream an emotional reaction was noted of which he was evidently aware for he explained apologetically that he could never remember this dream without an unaccountable feeling of sadness. The dream occurred when he was under the influence of ether for a minor operation and was related as follows:

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\*Read before the Society for Nervous and Mental Diseases, District of Columbia, June 18, 1914.



"I thought that everybody had disappeared from the earth and the end of the world had come. There were only left three large, grasshopper-like figures; I was uncertain whether they were animals or machines. They were fighting among themselves and finally two of them were killed, but I was in doubt whether the third one was dead or not. Then they disappeared and I found myself in the center of an intense sound, light and heat. It seemed that I had always existed so and always would and that all the life I had lived had been just a dream."

The dreamer awoke with a deep feeling of sadness. It seemed to him that he had experienced the futility of all human hopes and endeavors, that the human race would in reality dwindle to a few barren survivors and that if by chance his consciousness survived the material world it would only be as some formless, joyless thing with an eternity of unfruitful existence before it.

He thought of his dream frequently in the next few days and always the effect accompanied it. Then it became relegated to the background of his consciousness, he left the hospital and mingled with the outside world. It was only rarely after this that he thought of the dream, but whenever he did it was with the same pessimistic accompaniment. Now and then when the subject of dreams arose in general conversation he has alluded to this dream and commented on the tenacity it exhibited, but he never made any effort to explain it to himself until he became interested in the study of the language of dreams.

I have qualified the title of this paper by the word "partial" for three reasons: First, it is my belief that any dream of an adult, especially a vivid and emotionally potent one, strikes its roots so deeply into the life of the individual that a complete disclosure of them is equivalent to a psychological history of the dreamer from earliest childhood, the obtaining of which is a task of no small magnitude. Second, the dreamer showed a great

amount of resistance to certain parts of the analysis and as the latter was undertaken for purely academic reasons and not for any therapeutic purpose, no attempts were made to break this down. Third, a few intimate meanings were obtained from the dreamer which I have not his permission to make public.

In attempting to interpret this dream inquiry was made into the circumstances under which it occurred. We are first impressed by the fact that the dream was not an ordinary nocturnal experience, but the product of a narcotic state. We therefore inquire into the nature of the operation and the necessity for it and find just preceding the dream a period of great emotional value. Briefly, this young man, then a medical student, had contracted gonorrhea as a result of his first heterosexual experience. The disease had run a somewhat protracted course and was accompanied by fear of discovery, fear of infecting his relatives who used the same toilet articles and fear of complications. Twice while he was suffering from this malady papillomata had made their appearance and been amputated. A third time one of these growths had developed and the operation was for the purpose of excising it and performing a circumcision at the same time.

So we find a highly colored emotional state preceding the dream: The first sexual experience, the venereal disease with its attendant effects and the experience of an anesthetic for the first time. All these combined to produce an uncertainty and a depression.

In the first part of the dream the most striking things are the three large, grasshopper-like figures; the dreamer, it will be remembered, did not know whether they were mechanical or animal in nature. He associates these immediately with a story by an English writer, H. G. Wells, in which the earth is invaded by large machines from Mars guided by the inhabitants of that planet. In this connection also he recalls another story by the same writer, called "The Time Machine," this being a device whereby the operator could annihilate time,

he could be projected backward into prehistoric ages or be propelled forward several eons into the future at will. In the story, one experimenter seats himself on the time machine and begins to dip into the future. In his flight through the years he sees the human race gradually dwindle to a handful of forlorn survivors, who in turn become extinct, leaving the land inhabited only by a few crab-like creatures, who are fighting among themselves for the possession of what scant vegetation remains. The story, which is told with all the graphic power which this writer has at his command, left a distinct feeling of sadness in the dreamer's mind which has reappeared whenever he recalls it. It seems to express for him the futility of existence and the impossibility of immortality. That is exactly the same emotional tone that succeeded the dream. The explanation will be given presently.

An analogy was brought between the three large objects, the two that were killed and the third of whose fate the dreamer was doubtful, and the three venereal warts, two of which had been destroyed, leaving a third of whose fate the dreamer was as yet in doubt.

With the word "mechanical," which he used in describing these figures, the dreamer associates the mechanical hindrance to intercourse which he found because of a tight prepuce and frenum and he is also afraid that these warts might keep recurring and thus prevent any sexual pleasure. Also it is brought out that at the first sexual experience mentioned above, the dreamer did not experience the orgasm. He had thought a great deal about sexual matters and come to the conclusion that the pleasure obtained in intercourse must be the most intense possible. When, therefore, he did not experience this sensation, he was in doubt whether his lack of gratification was due to the mechanical hindrance of the prepuce or whether he was naturally unfitted to derive sexual pleasure from normal intercourse, owing perhaps to a deficient virility. Thus we have the doubt in a dream

as to whether the figures were "mechanical" or "animal" in nature.

It is worthy of note here that in endeavoring to recall supplementary details of the dream, he remembers that two of these figures were in the background of the dream picture while the third (whose fate was doubtful) was in the foreground. This of course agrees with their symbolization of the papillomata, two of which were things of the past while the third was a difficulty still present.

He was also able to recall that the first part of the dream seemed to take place in a flat, marshy country where pools abounded. This reminds the dreamer of some marshes not far from his childhood home. Here the boys of that neighborhood were accustomed to gather and bathe in the river which traversed the marshes. The dreamer was not allowed by his parents to take part in these amusements and in this connection we uncover an Oedipus complex.

It seems that the dreamer does not remember his real mother, but has a stepmother who, he thought as a child, was unnecessarily harsh in some of the restrictions she placed upon him. Later in life he realized the wisdom of her course of conduct, but meanwhile there had been erected an idealization of his real mother, this process being all the easier because he had never had a reality with which to correct his fantasy. This love for his mother which he naturally accompanies by a dislike for his father, which feeling, by the way, he takes pains to deny, he represents concretely by the marshes in which the forbidden amusement took place. His subconscious reasoning appears to be about as follows: "My stepmother would not allow me to join the other boys of the neighborhood, therefore I am rather weaker than they and have not acquired many accomplishments such as swimming. My father aids and abets her in this opposition. Consequently I am inferior to other boys of my age. If my real mother had lived

it would have been different."

With the acquisition of a maturer judgment he sees that his stepmother's edict was based upon such good reasons as the malarial character of marshes, the treacherous holes in the river bed, the immoral habits of some of the boys in the neighborhood, etc., and represses the feeling of hostility engendered by the attitude of his parents. It is probable that this repression mechanism is responsible for the fact that the flat, marshy country which symbolizes for him the Oedipus complex does not appear in the first rendition of the dream, but only in the secondary elaboration.

Further associations with this flat, marshy country show it to be a composite picture of the marshes mentioned above and a similar tract of land near which the dreamer later on had some experiences of a highly emotional character. It is interesting to note that this second set of experiences did not occur until several years after the dream so that the locality could not possibly have been represented therein. (This is not an intentional falsification on the dreamer's part and he is much surprised when his attention is called to the circumstance.) Perhaps in the dream the marshy country of his childhood did occur, but later on he changed it unconsciously to fit the locale of his later experiences.

The second part of the dream did not yield so readily as the first part. The dreamer finds himself in the center of three intense physical stimuli, heat, light and sound. By free association we bring out that each of these represents for him a physical inferiority.

With sound we associate the word "tone" and later "tone-deaf." This brings to light the fact that he has no ear for music and has at divers times been the object of ridicule on account of his inability to carry a tune. With light he associates "bright light" and a very painful period of his life is uncovered. From the age of puberty until the time of the dream he suffered from acne and underwent many humiliating experiences on



that account. It became a habit with him to avoid a bright light whenever possible. With heat he associates "passion" and is reminded that he always has been afraid that his natural "heat" was not adequate, i. e., his sexual potency. He used to fancy that because he had at times cold hands and feet that his virility was below par.

The emotional tone which colors the whole dream is one of depression. The dreamer in the first part of the dream thinks that the world has come to an end and in the second part he has the idea that he is a surviving entity who has dreamed of a world and a lifetime. It is brought out that this depression originates in what we may call a religious complex. The dreamer was brought up to be a constant attendee at church. About two years before the dream circumstances compelled him to miss church services for about a year and he never returned. Shortly after this he read some works of Ingersoll which made a deep impression on him, so much so that he could no longer accept the Christian religion. At the same time he felt that no acceptable substitute was offered for it. He felt that he was only a temporary inhabitant of a planet whose fires were doomed to extinction, that no matter what he might do in his lifetime his memory would echo but for a few years among the living and then he would be forgotten. These thoughts and longings had perhaps not been insistent in the dreamer's conscious mind, but they crop up in the dream.

We may summarize this dream as far as we have been able to go with it as follows: The dreamer disposes of his sexual desires and of all the inhabitants of the world who are his competitors and superiors, he himself remains the center of the physical forces of nature and himself physically perfect as he has longed to be. The dream shows in fact a colossal egotism. Through both parts of the dream runs a depression; the dreamer who, as we mentioned above, has an Oedipus



complex, has already cut himself off in spirit (as, in matter of fact, he shortly afterwards did in reality) from the family life. Now he is severing himself from his early religion which has been a protecting influence and feels himself adrift with no chart or guiding star.

The depression may also be partly due to the fact that although the dream represents for him a wish, i. e., the wish for physical perfection, for omnipotence, it does not satisfy his highestt ideals, it represents his libido as animating himself alone and not engaged in either a spiritual endeavor or a humanitarian one.

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## SELECTIONS

### NEUROPATHOLOGY

PHAGOCYTTIC POWER OF EOSINOPHILE LEUCOCYTES.—Manceaux-La Presse Medicale has recently reported at the Societe de Biologie that he has observed the eosinophile leucocytes, of a pleuritic exudate, engulf and digest red blood cells. The phagocytic power of eosinophile leucocytes has already been demonstrated by Weinberg in *Vitro-Charlotte Medical Journal*.

NAPOLEON'S DEATH.—The Dominion Medical Monthly extracts from proceedings of the last Int. Med. Congress the following interesting matter:

"Old controversies were revived and new theories advanced when the section devoted to the 'History of Medicine' considered two papers dealing with the death of Napoleon Bonaparte. Dr. Guthrie read an interesting and detailed paper, in which he asked the question, 'Did Napoleon suffer from hypopituitarism at the close of his lifetime?' This condition is one to which medical science has only recently turned its attention; it has relation to the pituitary gland in the brain, whose functions are not at present fully known.

"Dr. Guthrie discussed the condition of Napoleon in the closing years of his life, and pointed out the gradual decay of his mental faculties; his increasing lassitude, fatigue, and prostration; the increase of corpulence and chilliness, and lowered bodily temperature (indicated by the exile's frequent recourse to hot baths in a tem-

perate climate.) These symptoms were not entirely explained by the disease from which he was supposed to have suffered, and pointed to the presence of hypopituitarism.

"It was pitiful, said Dr. Guthrie, to trace the mental decadence of this mental giant. Napoleon became a bore, and in the last five years of his life degenerated into a pettish, querulous, and irritable old man. These things pointed to some trouble of a cerebral nature. The brain, he added, was never examined at the post-mortem, and this theory he advanced was one that could never be definitely determined."

The other contributions, including reference to the medical evidence, to be found in books or reports furnished by eight medical men—O'Meara, Stokoe, Antommarchi, Arnott, Shortt, Henry, Rutledge and Burton, the last four being present at the post-mortem, may be found in the *March, 1914, No. 1, pages 107-108.*

**THE DUCTLESS GLANDS IN DEMENTIA PRECOX.**—In dementia precox there is autointoxication. The fact that dementia precox begins in the years when developmental changes are greatest—the years of puberty and adolescence—is suggestive. During this period extraordinary demands are made upon the vitality.

In the author's paper 8 autopsies are detailed. A notable point in the ductless gland findings was the underweight of the thyroid in 7 of the 8 cases. In addition, 3 of them showed abnormalities, quantitative and qualitative, in the colloid of this organ, and 4, decided regressive changes in the acinar epithelial cells. The parathyroid findings could not be regarded as of significance, nor the parotid and thymus. The most constant feature in the adrenal picture was the small amount of fat in the cells of the cortex of this organ, especially those of the fasciculata. If this is to be regarded as indicative of functional change it indicates lessened

activity. In the hypophysis there was less colloid than is usually found in a series of these glands.—

From abstract of Current Literature on Internal Secretions from Sajous' and Taylor's Monthly Cyclopedia and Medical Bulletin.

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## NEUROTHERAPY

THE PHYLACOGEN TREATMENT OF HAY FEVER.—While Mixed Infection Phylacogen was formally introduced to the medical profession in 1912, it was some months later before adequate data as to its value in the treatment of hay fever were available. In 1913 hundreds of cases were reported, details of many of them appearing in the medical press during the latter months of that year. The results from these clinical observations were highly significant, showing a surprisingly large percentage of recoveries and warranting the belief that in Mixed Infection Phylacogen the physician had acquired a formidable weapon for his fight with one of the most stubborn diseases that he is called upon to treat.

The initial dose should be small, the usual procedure being to begin with a 2-Cc. dose subcutaneously or a  $\frac{1}{2}$ -Cc. dose intravenously. Reactions occur more quickly, and are ordinarily more severe, following intravenous injection.

It is seldom necessary to administer more than four to six injections, the symptoms often disappearing after the second or third injection. Almost immediate relief is noted by the patient. The irritating discharges from the eyes and nose are diminished in amount, the sneezing is lessened, the dyspnea is relieved, and the patient usually sleeps comfortably.

Mixed Infection Phylacogen is supplied in 10-Cc. bulbs by Parke, Davis & Co.

TREATMENT OF HICCOUGH.—F. H. Mead, in the Medical Record for January 10, 1914, reports a case of persistent hiccough in a febrile patient with dilated stomach, enlarged prostate, and interstitial nephritis, in whom, after peppermint water, morphine and atropine, chloretone, and mustard had failed or brought only temporary relief, administration of a saturated solution of menthol in alcohol, in a little hot water, was promptly followed by cessation of the hiccough. Upon administration of three additional doses in the next twenty-four hours, no recurrence took place.—Med. Fort.

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THE  
ALIENIST AND NEUROLOGIST.

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Any Comment, favorable or unfavorable, specifically set forth, is always welcome from friend or enemy or any "mouth of wisest censure."

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CHAS. H. HUGHES, M. D., Editor and Publisher.

Editorial and Business Offices, 3858 W. Pine Boul.

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## EDITORIAL.

THE WILLIAM H. WELCH ENDOWMENT FOR CLINICAL EDUCATION AND RESEARCH is a gift of \$1,500,000 presented by the General Education Board to the Medical School of Johns Hopkins University.

PSYCHOLOGICAL PHILOLOGY IN FINANCE LITERATURE.  
—Louis Albert Lamb, editorial contributor to the Republic, discoursing on the "Wane of Tips and the Reign of Facts" in the last November third issue, thus descants toward the end of his interesting theme:

"Among many important factors in the wane of speculation is the rise of advertising as a psycho-economic force, using all the modern coercion of suggestion and hypnotic appeal. The wizardry of modern advertising



is able to compel the average consumer to buy the thing advertised in preference to any other, regardless of price. Hence national advertising is a very potent diminuent of hazard, a great antidote to risk, and a distinct deterrent of speculation."

The article, which is good reading for professional men who are easily misled in investment securities by the ticker fiend and get-rich-quick promoter, concludes with sound advice to Welcome the Cult of Sane Investment.

ANNUAL MEETING: MEDICAL SOCIETY OF THE MISSOURI VALLEY.—Colfax Springs and Des Moines, Iowa, will entertain this society on the occasion of its twenty-seventh annual meeting, September 17, 18 and 19, 1914, under the auspices of the Polk County Medical Society.

SANITARY LIFE ABOVE THE DENSER DUST LINE.—Living so much of their lives above the denser dust line of cities in upper rooms of the modern sky-scraper, these tall office buildings must contribute to the health, well-being and longevity of officers and employees, when the basement bar, billiard and pool tables are reasonably avoided.

It would be interesting if our microscopist sanitarians would examine often and report the bacteriological status of these upper air apartments as compared with the lower and the comparative quiet and freedom from the lower street noises. Here is an extension of the field for City Health Boards.

The sky-scrappers and air-ships are making possible a newer and a higher life in the physical and perhaps psychical sense of this popular term.

ANNALS OF SURGERY.—The new dress of the Annals is worn for the first time in and on the July issue. While new clothes suggest prosperity and look well, the Annals of Surgery does not depend upon its dress for popular professional appreciation. We are glad to see it look well,

but it looked good to us before and would be equally well appreciated on its merits if uncovered. The women seem to be acting on this idea in their raiment and they would look quite as well without their cheese cloth and other diaphanous adornment.

TWO DRINKS A DAY is the sanitary limit, said Smith Ely Jelliffe, recently testifying as medical expert before the Court. But he does not specify the size of the drinks nor condition and circumstances nor explain his experience or qualification as a drink expert. He thinks the system can burn up the alcohol in two drinks, but we are not informed whether he refers to brandy, whiskey, wine or beer. Would liquor dealers and bar-tenders agree with him?

AN OLD DOCTOR.—Dr. James Lloyd Wellington, of Swansea, Mass., according to the Boston Medical and Surgical Journal, is the oldest living graduate of Harvard Medical School, Senior Fellow of the Mass. Medical Society and oldest physician in the United States. He "continues in habitual good health" and celebrated his ninety-sixth birthday on February 27th, 1914.

SIXTY THOUSAND INSANE were admitted to the Insane Hospitals of the United States in one year. This is the number given by Director Durand, of the last United States census, and he has estimated an increase of insanity in this country of more than twenty-five per cent among us within the past six years. Here is a potent appeal to the friends of psycho-eugenics and warning of caution for reckless livers, the excessive consumers of alcohol, the excessive meat eaters, revellers at the expense of sleep, "burners of the midnight oil," or the electric light fiends who never know when to go to bed or when to hold back the output of neuronie force or give the brain power centers a chance for repair—who look better after their bank account reserve than they do

after their nerve center balance—who all of a sudden discover, if they have perceptive power enough left to discover, that the heart or brains or other organs have abruptly failed, as the “juice” gives out in their electric coupes or the gasoline in their cars or the tires have burst.

DR. ISAAC RAY, PIONEER ON NON-MECHANICAL RESTRAINT.—In Butler Hospital Report, Providence, R. I., 1914, we find this reference to the first Superintendent's Report back in 1849:

“Dr. Ray, in his first report to the Trustees presented to the Corporation in January, 1849, stated the keynote of the system of treatment for its patients, which has characterized the Butler Hospital ever since and with ever-increasing prominence. He said: ‘There is one feature of our management, however, to which I would solicit your attention. I refer to our almost total abstinence from the use of mechanical restraint, by which I mean the various contrivances of wood and leather for preventing the motions of the body or limbs. Believing that in this institution no merely economical considerations should prevent us from adopting any improvement intimately connected with the highest interest of the insane, we have from the outset been governed by the rule that mechanical restraint should be considered as an extreme measure, to be used only when the object in view was clearly beyond the reach of any other means. During the thirteen months we have been in operation, having 156 patients under our charge, we have used mechanical restraint in one instance only. This was to prevent a person from tearing open a wound, and was continued for three or four days.’ ”

IMBECILES IN MASSACHUSETTS AND THE UNITED STATES.—Dr. Richard Cabot of Harvard Medical School stated recently that “There are from 9,000 to 12,000

people in this State who ought to be in institutions for the feeble-minded."

He is reported as having said "shut up," but he hardly meant that. He meant "cared for by the State," whereas not over fourteen hundred are there provided for.

What is true of Massachusetts is true comparatively of imbecility and idiocy in most of the other States.

There are too many idiots at large, grown up ones especially, in the political arena of our country—too many of them are just now in the war area of Europe.

Idiocy and imbecility are perilous and disastrous to a people in more ways than in family degeneracy alone.

LIQUOR DRINKING CONDEMNED AND HOSPITALS FOR INEBRIATES APPROVED are two wise, sanitary and race-saving resolutions adopted by the late Congress of Alienists and Neurologists at Chicago. But some other things said at that Congress were otherwise and amateurish, especially the statement by one of the members that insanity is not on the increase, when the eleemosynary and penal institutions all over the country are crowded with mentally defective creatures who need the fostering care and treatment of the psychopathic hospitals, but cannot get into the latter for lack of room.

A FACSIMILE OF A FAKE PRICE LIST in which the well and reputably known name of Parke, Davis & Co. was misused by quack doctors, to enable them to victimize their patients with certain serums. These quack circulars show exceedingly great presumption of simplicity, ignorance and dishonesty on the part of the average medical profession. Among these serums are sera for sexual neurasthenia, loss of vitality, impotence, etc., testical and prostate gland troubles, etc., including cat serum, probably tom cat serum. We are glad to note the suppression of this blooming, unconscionable firm.

PSYCHIC ERROR OF THE 'COLD AIR TUBERCULOSIS TREATMENT.—Sajous and Taylor's excellent Medical Bulletin has a justly condemnatory editorial criticism by Dr. Crandall.

We have known of patients pronounced tuberculotic and sent to Colorado where they died of pneumonia from being psychopathically compelled to retire from the rest of the family every night to a cold, well-aired bed room with plenty of warm bedding and bed wrappings—but with the ever-present depressing mental impression, that they had tuberculosis and that this was the proper and necessary treatment, between them and the cemetery.

This is bad psychiatry and a sound, hope-inspiring, invigorating psychotherapy is all right. Fresh air is inspiring, but a cold, fresh-air room and solitary separation and chilly discomfort in a room too cold for the rest of the family every night, is too depressing, too dispiriting, and too suggestive of impending doom for the best fighting rally of the consumption victim.

"'The only time we are comfortable is when we are in the dining hall.' This is the report of a tuberculosis patient, under treatment on conventional lines," says the commentator, "at a Mountain Air Sanitarium."

Now, common sense demands a rational therapy in the treatment of any disease and especially in one so devitalizing as advanced tuberculosis. Such a patient should be made as sustainingly comfortable as practicable.

There is a normal psychiatry in comfortable environment and freedom from depression and chill, which is curative in any disease.

A NEW VOCATION FOR MEDICAL MEN.—Medical Judge for Each County.—Under the terms of a bill presented to the Senate by J. S. Seeley, it is provided that each county in the state shall have a medical judge, who shall be a physician, with a salary of \$3,500, and an allowance of \$2,500 for expenses; that the duties of the medical judge shall be to attend all trials where

medical evidence is given concerning the sanity of the defendant, and to advise the court and jury regarding the accuracy of the testimony.

This is all right if the medical experts have correct knowledge.

**A MUNICIPAL DRUG FIEND HOSPITAL.**—Depriving the "Dope Fiend" of his dope. News from the associated press lately announced that "eight young men applied to the police of Rochester to be locked up," fearing they would either commit suicide or murder in their unstrung mental and nervous prostration, resulting from the deprivation.

Here is the point for the police dealing with these unfortunate drug slaves. After a prolonged, habitual use of opium or cocaine (especially) the pains of abstinence so well described by DeQuincey should be considered and the "Iliad of Woes," coming to these habitues should be considered and cared for. It is not merely restraint that is needed; it is saving, humane treatment, hence the necessity of hospital rather than penal provision for the lawfully enforced abstinent ones. These pitiable self-helpless creatures are chronically and painfully poisoned and sudden abstinence reveals the damage in their tortures of sudden withdrawal; while repeated doses cover up the mischief and obfund the misery of abstention. These drug-toxined victims need therapeutic substitution and re-entonnement, pending withdrawal of the pernicious poisoning drug.

**MILITANT INSANITY.**—Under this caption the Outlook (March 21st, ult.,) rationally discusses the bizarre conduct of the militant suffragettes, Madam Pankhurst and the picture slashing May Richardson, who, at the National Gallery slashed in six or seven places Velasquez's famous Rokeby Venus, a picture purchased for the nation by popular subscription.



Miss Richardson's plea in extenuation, "I tried to destroy the picture of the most beautiful woman in mythological history as a protest against the Government for destroying the most beautiful character in modern history," is insanely illogical, *mal apropos* and out of normal harmony with her environment and every rational view of the facts of time, place and circumstance. Such conduct suggests the necessity for restraint and cure homes with mild penal features for such insanoids.

A CHIROPRACTIC'S ETHICS.—Having been superseded by a regular physician in the treatment of a cerebral affection, a chiropractic made a volunteer visit to the patient afterwards and remarked, "saturated with bromides. I smelt them as soon as I entered the door. That will do no good, the trouble is in his spine. The back bone needs adjusting." He displayed a remarkable sense of smell as well as an extreme ability for prevarication, for the bromides are odorless and the p. m. showed cerebral embolus and arterial rupture.

COURT PENAL COMMITMENTS FOR INEBRIETY should be changed to commitments to detention, curative and reformatory hospitals provided by every state. There is too much of impelling disease in obstinate and prolonged inebriety, not socially induced, to justify purely penal punishment.

DRUNKENNESS IN MASSACHUSETTS.—The recently published report of the commission, appointed in August, 1913, to investigate drunkenness in Massachusetts, records the work and recommendations of that body. A series of public hearings was held and numerous measures considered. The first part of the report is concerned with ascertaining and stating the nature and magnitude of the problem, the second with discussions of suggestions for the prevention of drunkenness. The commission makes ten specific recommendations for legislation, em-

bodied in six proposed bills which are printed in an appendix. It believes that the method of committing persons to penal institutions for drunkenness is wrong in principle and should be abandoned.—B. M. & S. J., April 16, 1914.

ALCOHOLIC PSEUDOPSIA.—“A murder was committed in a secluded spot on the banks of a river. A man passing on the highway in sight of the spot swore positively that he saw a man trying to wash the stains out of a bloody shirt at that time.

“At the trial it was proven that this star witness had taken two glasses of spirits a short time before he started home, and that what he really saw was a tramp washing out a red flannel shirt. The murder had been committed at a different place, and the false impression of the witness was from alcoholic confusion of both sight and reason.”

Such and similar illusory perversions of sight and likewise of sound are common to profound inebriety.

THE DEGENERATIVE EROTIC DANCES.—“The modern sensual dance” (the tango, the turkey trot, bunny hug, etc.) as the Medical Review of Reviews characterizes the new dances “with their origin in the underworld, prostituted to the development of sensual stimuli, no longer should receive the support of intelligent and moral parents.” Such is the conclusion of this able review.

“If art must be debased let it remain in the brothel.” It is socially malicious to create unnecessary stimuli that irritate and augment the sex characteristics of the dancing population.

The tango fosters erotopathy and lust. It develops neuropathy and psychopathy among many neuropathically endowed who indulge in its amorous movements. Clergy and profession should condemn it. It hurts body and mind. “Noli me tangere” should be the motto con-

cerning it, of the right-minded women, and this is the name of a disease.

"*SALUS POPULI SUPREMA LEX ESTO.*"—An excellent magazine is on our table. It caters to the needs of physicians and the people in a most important respect and helps by right and safe comprehensive oversight of our prescription to save life. From it we quote an excellent and timely editorial.

" '*Salus populi suprema lex esto,*' which translated means 'the health or welfare of the people is the supreme law', is the motto of the State of Missouri. An excellent motto, indeed, and one which should be made the motto of the United States, for what is higher and more important than the health of the people? Yet, we know of nothing which receives less attention on the part of the national lawmakers. We work ourselves into a pitch of hysterical excitement in regard to the conditions in Mexico and almost gag ourselves in an effort to create a war scare. Again there are newspapers that devote their entire time and space to the tariff question, trying to prove that the new tariff revision is going to send the prosperity of the country to the dogs.

"We get excited over more or fewer warships. We devote tons of paper and printer's ink to Bryan's lecture tours and to ridiculous theorizations as to the Government's attitude in Mexico. If some of the misspent energy were devoted to a discussion of the public health and more efficient means and methods of safeguarding the physical well-being of the Nation, we might hope for more prompt results as far as national legislation in that regard is concerned."—Pacific Pharmacist.

MEDICAL BLUNDERS IN NEWSPAPERS.—The Literary Digest, discussing a reasonable query by a writer in the Journal A. M. A. and the need of newspaper medical experts as well as the financial experts employed by the newspapers, quotes the following daily press blunders:

"The Philadelphia Ledger in describing the Trendelenburg position says: 'The Trendelenburg posture consists simply of posterior operations by means of a specially contrived operating-table, that in cases of a particularly delicate character have been remarkably successful.' Another leading daily paper, the Cincinnati Enquirer, says:

'Dr. M. W. died suddenly of pleurisy of the brain. He became ill in this city with pulmonary peritonitis.' The Philadelphia Press reports that 'A four-months-old child died of what is known among surgeons as faraman ovale.' The Fort Wayne Journal-Gazette in speaking of what it calls 'ankerstealeal nephortis' declares that 'this disease makes the internal conditions worse than Bright's disease.' The Cleveland Plain Dealer says: 'The V—— Pharmacy has been named as a supply-station for antitoxin. The antitoxin will be used in cases of diphtheria, to prevent blindness in newly born babies, for throat cultures, and in the examination of blood in typhoid and malarial cases.' The San Francisco Chronicle tells of a citizen, who 'while cranking his automobile, sustained what is technically known as a Colles fracture of the right rib.' The Boston Record says: 'The *bacillus Welchii* is the gas bacillus dwelling in the international track.' The Chicago Record-Herald describes the death of a man from 'shock and lumbar pneumonia following six gunshot wounds.' An Erie (Pa.) paper records the opinion of three surgeons that a man 'would always be a sufferer from chromatic epilepsy.' . . . Describing a fatal accident, one paper says: 'The shock acted on the neuromastic nerve leading from the lungs and stomach to the heart.' A Rontgen-ray examination of a man who thought he had two hearts showed that he was suffering from an aneurism of order A. Another suffered from 'plumbago,' and a third from 'schlerous of the liver.'

"The question has also its serious side, as in the instance of sensational newspaper articles concerning cancer and tuberculosis cures, some of which at least soon

prove to be fakes, and their exploitation under the guise of new discoveries the most palpable advertising dodge. Incomplete or premature reports delude incurables into taking long journeys, thereby undergoing the most hopeless suffering and wasting fruitlessly their resources only to experience the most cruel disappointment."

The recent illness of the Pope from which he so miraculously convalesced after the many fatal maladies ascribed to him by scoop-seekers of the press might here also be mentioned as not mal apropos."

GEORGE W. CRILE, OF CLEVELAND, OHIO, describes his Anoci-Association, with special reference to abdominal and exophthalmic goitre operations, in the Journal of the Tennessee State Medical Association, July, 1913.

He says that he has found that animals under ether or nitrous oxide anesthesia present a state of low vitality or surgical shock and that their brain cells show corresponding physical changes.

However, only part of the brain cells are thus affected. The unaffected cells are wide awake in the normal wide awake state. It is known that strong patients may be so affected by surgical shock as to require months for restoration to health. Consequently, it is necessary to temporarily disconnect the field of operation from the brain by the use of a local anesthetic, as when this is done, no matter how severe, nor how extensive, nor how prolonged the physical injury in the zone thus blocked, no exhaustion follows, and no brain cell changes are seen.

If an operation is so planned that all harmful or nocuous associations are prevented, this state is designated by Crile as Anoci-Association, in other words, it means that a surgical operation performed on this principle must be so conducted that there is excluded from the brain all noci-association.

This may be accomplished when the patient is under anesthesia by entirely isolating the brain from the field



of operation by a careful infiltration of a solution of 1:400 Novocain and by further observing accuracy and gentleness. In this manner an operation, however extensive, may be made a shockless operation.

At its conclusion that operative zone is cut off for two days from its communication with the brain by an injection of quinine and urea hydrochlorid so that the after-pains and post-operative nerve-exhausting stimulations may be avoided.

In abdominal operations, Crile first administers 1/6 gr. of morphin and 1/150 gr. scopolamin one hour before the operation. If local anesthesia is to be employed, he uses Novocain in 1:400 solution by progressive local infiltration.

If inhalation anesthesia is employed, he then administers nitrous oxide either alone or with the addition of ether as required. As soon as the patient is unconscious, he infiltrates first the skin and then the subcutaneous tissue with 1:400 Novocain. Anesthesia is immediate and he cuts through to the fascia, which is then novocainized and divided. This exposes the remaining muscle or posterior sheath, and finally the peritoneum, each one of which is novocainized and divided. If the blocking has been complete, the opening of the abdomen will show an increased intra-abdominal pressure, no tendency to expulsion of the intestines and no muscular rigidity.

The peritoneum is then infiltrated with quinine and urea hydrochlorid, thus concluding the blocking. When necessary to enlarge the operative field, the area of the blocking can be increased.

If this technic is properly carried out, no matter how extensive the operation, how weak the patient, or what part is involved, the pulse rate at the end of the operation will be the same as at the beginning and there will be no post-operative rise of temperature or acceleration of the pulse, and pain, nausea and distension will be minimized or entirely prevented.



When necessary to operate on an advanced exophthalmic goitre either by ligation or lobectomy, Crile blocks off the area and finds as a result that post-operative hyperthyroidism is prevented or minimized and the immediate results are so improved that the later clinical results are also improved.

Crile reports that during 1912 he and his associate performed 729 abdominal sections under this method with a mortality rate of 1.7 per cent., and that in the Lakeside Hospital he and his associate operated with this method on 2,672 patients with a mortality rate of 1.9 per cent. His mortality rate in the last 1,000 cases was .8 of 1 per cent.

Crile has demonstrated that by blocking off with Novocain he is enabled to prevent shock and the consequent shattering of the delicate nervous mechanism of the human body and he thus aids in restoring the parts to normal conditions by conserving the physical strength and he is further able to reduce the operative mortality to a minimum hitherto unbelievable.

Blocking off shock may be done with a preliminary dose 1/4 hypodermically or per orem of morphia half an hour beginning with an ether or chloroform anesthetic and the operation in the major throes of labor as was practiced by the editor of this Magazine fifty years ago when doing surgery and gynecology. This is a readier and handier method for the average country obstetrician for certain emergencies of practice.—Editor.

#### MODERN DAY ADMINISTRATION OF COD LIVER OIL.—

In olden days whilst the great nutritive value of cod liver oil was fully recognized and every effort made to place it at the patient's disposal, yet the lack of a palatable product all too often made its employment unsatisfactory or even impossible.

For many years this draw-back of cod liver oil deprived the profession of the best of tissue foods and it was not until pharmaceutical science devised means of making the oil palatable that it began to come into

its own. Cord. Ext. 01. Morrhuæ Comp. (Hagee) is the most valuable and widely employed of the preparations of cod liver oil, and largely so because the medical profession has long recognized its superior worth. It may be given over long periods of time without causing gastric distress.

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## CORRESPONDENCE

Dear Sir:

The American Roentgen Ray Society will meet in Cleveland at the Hotel Hollenden, September 9th to 12th inclusive, 1914. The program includes a paper by Des-sauer of Frankfort, on the subject of artificial production of gamma rays; Coolidge, the inventor of the Coolidge tube, Schearer and Dunne will also read papers. The subject of deep therapy and the production of the hard rays will be presented, etc.

W. F. Manges, Secy.

## REVIEWS, BOOK NOTICES, REPRINTS, ETC.

PSYCHOLOGY AND MENTAL DISEASE for use in training schools for attendants and nurses and in medical classes, and as a ready reference for the practitioner, by C. C. Burr, M. D., Medical Director of Oak Grove Hospital (Flint, Mich.) for Mental and Nervous Diseases, etc. Fourth Edition Revised and Enlarged with illustrations. F. A. Davis Company, publishers, Philadelphia, Pa.

From what we know of the author, as well as from a cursory survey of the book, we can detract nothing from our former good opinion given in review of previous editions.

SEROLOGY OF NERVOUS AND MENTAL DISEASES.—By D. M. Kaplan, M. D., Director of Clinical Research Laboratories of the Neurological Institute, New York City. Octavo of 346 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1914. Cloth, \$3.50 net.

Every alienist and neurologist should have this valuable book. It is of special clinical and therapeutic interest and value, by a good author and a publisher of merit and repute.

PSYCHOLOGY IN DAILY LIFE.—By Carl Emil Seashore, Prof. of Psychology and Dean of the Graduating College in the State University of Iowa. D. Appleton & Co., Publishers, New York. Every alienist and neurologist should have this valuable book in his library shelves.

This book is one of the Mind Series edited by Joseph Jastrow.

THE MYTH OF THE BIRTH OF THE HERO.—A Psychological Interpretation of Mythology. Nervous and Mental Disease Monograph Series, No. 18. By Dr. Otto Rank of Vienna. Authorized translation by Drs. F. Robbins and Smith Ely Jelliffe. The Journal of Nervous and Mental Diseases Publishing Co., New York.

This is one of the best of this series from a strictly literary point of view.

THE LAYMAN REVATO.—A story of a restless mind in Buddhist India, at the time of Greek influence. By Edward P. Buffet. Is an interesting book. It is largely a study of general philosophy and psychology and contains some unusual psychopathic data, which will prove attractive from an analytical point of view. Douglas C. McMurtrie, New York, publisher.

PRACTICAL POINTS ON SYPHILIS.—Being an account of the disease as it is related by a physician to his patient. By R. B. H. Gradwohl, M. D., Director of The Ricord Hospital, St. Louis, Mo. Medical Publishing Co., publishers, St. Louis, Mo.

The author is well qualified for the writing of this book and the medical man and woman will profit by reading it.

STAMMERING AND COGNATE DEFECTS OF SPEECH.—By C. S. Blumel. There are two volumes—Vol. I. The Psychology of Stammering and Vol. II., Contemporaneous Systems of Treating Stammering; their Possibilities and Limitations. C. E. Stechert & Co., publishers, New York.

These two volumes will prove of value to the interested reader. They are of special interest and service

to those engaged in this line of research and treatment and of value to the alienist and neurologist.

PROCEEDINGS OF THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION at the Sixty-Ninth Annual Meeting held in Niagara Falls, Canada, June 10-13, 1913, published by American Medico-Psychological Association. The proceedings of this old Medical Association—the oldest in the United States—like the present ones, are always interesting exhibits of sound alienistic, clinical experience and philosophical conclusion. The papers are all from sources of practical psychiatric experience.

THE UNITED STATES PUBLIC HEALTH SERVICE AS A CAREER.—By W. C. Rucker, M. S., M. D. Assistant Surgeon-General. Contains many new and forceful suggestions for those for whom they are designed and for the public sanitary weal.

THE CONFLICT OF CONSCIENCE.—By Charles Gilbert Davis, M. D. From *The American Journal of Clinical Medicine*.

THE AMERICAN LABOR LEGISLATION REVIEW contains much valuable suggestion in the interest of labor and employer, chief of which is the three shifts in night and day continuous service. Labor and capital through this valuable magazine will come intelligently, harmoniously and profitably together as monetary and sanitary reward. What is good for one is good for the other. We are on the way to an understanding of the highest and best capacity of the human machine as to its most effective output of endurance and repair from day to day.

A NEW METHOD FOR ESTIMATING THE FUNCTIONAL CAPACITY OF THE KIDNEYS BY FORCED ELIMINATION OF PREFORMED UREA.—By G. W. McCaskey, A. M., M. D., Fort Wayne, Indiana. From *Medical Record*.



UNITED STATES BREWERS' ASSOCIATION.—The Year Book with Proceedings of the Fifty-third Annual Convention held at Atlantic City, N. J., October 3rd and 4th. Put in circulation by the United States Brewers' Association and this body has presented the most forceful showing possible in behalf of beer as a daily beverage.

SEVEN AMBITIOUS BROTHERS AND HOW THEY BRED A RACE OF KINGS.—The First of a Series of Monographs on the Improvement of the Human Plant. Henry Smith Williams, M. D., LL. D., editor for The Luther Burbank Society, Santa Rosa, California.

GONORRHEAL PROPHYLAXIS.—1500 B. C. to date, with Tabulation of Gonorrheal Inoculation Cases. By Luigi Galvani Doane, M. D., New York, N. Y. From The American Journal of Surgery, April, 1906.

GRAY'S GLYCERINE TONIC COMPOUND was first placed at the service of the medical profession twenty years ago. During all this period it has maintained the standards that first attracted attention and the busy practitioner has ever found it an ally worthy of confidence as its devisor Dr. John Gray did.

RESULTS OF EARLY MARRIAGE.—The author, Casper L. Redfield of Chicago, asks the question, "Does it lead to the production of desirable children or of mediocrities?" Declares the need for facts to substantiate theories, offers a reward for production of cases where rapid breeding led to good results from an intellectual point of view. The reward is to go to the American Genetic Association. Reprint from the Journal of Heredity. Time limit on this offer is December 31st.

THE SEI-I-KWAI MEDICAL JOURNAL, edited and published by The Sei-i-kwai, both in English and Japanese,

comes to this office regularly and interests us much. We should be glad if it contained more neurological and psychological matter. We should be pleased to learn through its pages if our friend and former student, Dr. Arita, is still living in Tokyo. He ought to be writing for *Sei-i-kwai* on some neurological subject. We should like to make our readers better acquainted than they are now with Japanese neurology. His people, however, are so steadily neuroned—so level-headed—that perhaps he could find few neurotics in the Flowery Kingdom to write about.

LA PHYSICOTHERAPIE DU CANCER.—Par M. J. A. Riviere (de Paris) (I) from *Annales de Physiotherapie*, contains a splendid article on the subject of the above caption by this eminent French clinician which will prove of great value to our French readers. An excellent digest of this subject by a very competent physician.

"SPONDULIX" THERAPY.—While there undoubtedly is a great deal of "spondulix" therapy about, especially in the newspaper patent medicine line and many make a living by quack advertisements, Winslow in *Northwestern Medicine*, in a book review article, gives us this new term in therapeutics, though he does not father it himself, as follows:

"Abrams then brings in his spinal tapping for lowering blood tension. This method is also advised in the article by Snow on mechanical vibration. The reviewer has always found Abrams spondylotherapy difficult of deglutition and, even perhaps unfairly, has styled it—in a review of Abram's book on the subject—as spondulix therapy. Abrams has unquestionably an active and fertile brain but some of its emanations are not so readily assimilated by the inhibitory Anglo-Saxon (mind?) organ. The quarterly, as usual, is filled with interesting, if unallied subjects."

THE JOURNAL OF INEBRIETY AND ITS POSSIBILITIES is a prospectus announcement by this worthy and long existing magazine, founded in 1876 by Dr. T. D. Crothers and colleagues, in this medical and philanthropic specialty, which now announces a forth-coming monthly.

The announcement is timely and will be welcome to the well wishers of mankind in this direction of essential medical research and eugenic, as well as philanthropic, enlightenment.

"The Journal is to be incorporated as a stock company, capitalized for \$10,000. One thousand shares at \$10.00 each. This stock will be divided into common and preferred stock, there being 500 shares of each kind. The preferred stock will be entitled, in addition to all dividends declared on the common, to a subscription to the Journal of Inebriety for ten years from the date of its issue.

"Three hundred of the preferred shares are to be placed on sale at the present time. The money derived from the sale of these shares will be devoted to enlarging the Journal and extending its influence. Commencing with Volume xxxvi, July, 1914, it is proposed to change the Journal to a monthly. We will then be giving a periodical three times as large as formerly and at the same price.

"Plans for increasing the circulation and thus the usefulness of the publication, have been formulated and it is confidently expected that the money for their fulfillment will be supplied by those who are interested in the department of work for which it stands.

"Will you not further the success of this proposition by sending in your subscription for one or more shares of this stock, at once, using the enclosed subscription blank for that purpose? Signed,

Pitts Edwin Howes, M. D., Publisher."

The proprietor of the *Alienist and Neurologist* takes pleasure in attesting his appreciation of the proposed change and in adding his name to the stock subscribers'

list. This special department of medical enlightenment and research needs just such a magazine as is here proposed. The conviction is growing and the literature is accumulating to prove that alcoholic indulgence is a breeder of disease and misery, as well as the offspring thereof. The profession and the public need this magazine.

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# ALIENIST AND NEUROLOGIST

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## INFECTION AND INTOXICATION PSYCHOSES.

BONHOEFFER.

Translated by D. G. O'Neil, Junior Assistant Physician,  
Government Hospital for the Insane.

THE chapter on infection and intoxication psychoses is one of the least clear in the nosology of psychic diseases. This is in part due to external causes. The psychiatric observer is mostly obliged to base his judgment of this category of diseases on quite a limited number of cases which renders it difficult for him to recognize what is typical. He frequently does not see cases of but short duration at all. In intoxication psychoses the differentiation is made more difficult by the fact that the idea of auto-intoxication is frequently merely hypothetical and more or less broad according to the subjective views of the individual observers.

Let us turn first to the infection psychoses. Here the following clinical questions must be answered:

1. Are there specific diseases—that is, diseases differing from each other in their psychic picture—corresponding to the specific infectious agitators?

2. In case this question is answered negatively; can every kind of psychosis be caused by an infectious disease?

3. Is it justifiable to separate etiologically the psychoses appearing in the course of febrile diseases from those setting in with the disease of fever?

4. Do psychoses caused by infectious diseases, though not characterized in detail according to the incitors of infection, yet appear as a whole as specific psychoses which differ from each other, especially from those of exogenous origin?

As to number 1, opinions scarcely differ any longer as to the fact that there are no specific psychoses characteristic for definite exciters of infection. Typhus, influenza, erysipelas, malaria, sepsis, etc., show no specific differentiating marks in the psychic picture. Quantitative differences alone can be established in so far as some infectious diseases lead more easily to psychic disturbances than others do. The analogy formerly upheld, that corresponding to the differences in the psychic picture due to the effects of alcohol, cocaine, morphine and others, differences due to the nature of the incitor of the infection must appear, has found no confirmation in clinical experience.

2. The question whether every kind of psychosis can be caused by an infectious disease was lately answered affirmatively by Famenne; but it seems to me that we are confronted here by the same source of errors followed by authors who maintain the same regarding alcoholic etiology. In both cases the frequency of anamnestic proof regarding the injury in question has led to an over-valuation of its etiological importance and to the neglect of other clinical relations.

3. The separation of the infection psychoses according to the course of the basic disease into initial deliria, infection deliria, collapse deliria and exhaustion deliria is only justifiable in so far as it expresses an external timely relation to the basic disease. The attempt to base upon it a division differing etiologically and showing disease pictures symptomatically different and corresponding to the different phases of the course frequently made formerly, has no sufficient basis in clinical experience. The psychic disturbances appearing in the individual disease periods show symptomatically such great conformity, that artificial separation only is possible.



Even the common infectious reactionary type of fever delirium may be observed in all stages of the basic disease, though it most frequently sets in with the infectious rise in temperature. The suddenness of development which was formerly held characteristic of the so-called collapse deliria is just as frequently seen in the fever phase itself.

4. Before answering this question it is necessary to reach an understanding about the nature of the psychotic pictures developing on the basis of infectious diseases. This sketch cannot give a detailed description but only emphasize and point out the most important and typical.

The dominating symptoms are fever deliria, dreamy scene-like hallucinations with disorientation, stupefaction, defective observation and a reactive impulse to action. Next in frequency are sudden epileptiform excitements with disorientation, phantastic fear and religious ideas, at times impulse to speak pathetic in character. Later on stupor and twilight conditions with labile orientation and intercurrent deliria may be observed, quite frequently these are also introduced by an epileptiform excitement. Hallucinations with sustained orientation and a tendency to fleeting systematization also occur. Flowing transitions lead to amentia, called by the French, *confusion mentale* (mental confusion.) Here we see sometimes features of incoherence, sometimes more hallucinatory or catatonic features developing. The course is critical or lyterical in more or less close connection to the course of the basic disease. It is frequently by way of an amncstic condition picture (Korsakoff's syndrome) or an after stage of emotional hyperaesthetic weakness. Chronic progressive psychoses do not develop from infection. Defective conditions, like the pseudo-paralytic, mostly developed from the amnesic condition, do occur.

If we look over these symptoms and course pictures there can be no doubt that they are anything but pathogenic to the etiology of the infection. The same pictures may be seen on the basis of other non-infectious injuries,

chiefly of toxic and autotoxic but also traumatic and circulatory nature.

If we thus arrive at the negation of the fourth question and the view that other exogenous injuries—exogenous in contrast to the endogenous, diseases due to congenital inherited tendency—also show the same grouping of symptoms; the further question will arise, are these condition pictures and courses characteristic to exogenous etiology generally, can the definite conclusions of an exogenous etiology be drawn from their occurrence without any knowledge of the somatic disturbances at their base?

I, myself, have spoken of exogenous reaction types, not in the sense of symptom complexes, pathognomonic to and developing exclusively on the basis of exogenous etiology, but in the sense of predilection types. Toxic infectious processes prefer these psychotic condition pictures.

There is no doubt that, for example, an epileptiform excitement due to toxic infection need not differ in any way psycho-symptomatologically from a real epileptic one. (It is true epilepsy itself may contain something exogenous and toxic.) Similar things may be said of many catatonic and amentia pictures. The differentiation of many infection psychoses and processes belonging to dementia praecox is not always possible without close study. But it need not follow from this, as Bleuler seems inclined to think, that they must therefore belong to Schizeophrenia.

But one type is actually always of exogenous development and pathognomonic for exogenous etiology, that is, the amnestic condition picture (Korsakoff's syndrome) and the same may be said of the delirious conditions most closely allied to the amnestic condition picture. Korsakoff's syndrome, as well as true deliria, is never found in endogenous psychoses, for example, in manic depressive insanity. They are also wholly foreign to dementia praecox. If they intervene here we are justified

in saying that some organic injury of other nature must have come into play.

In order to gain clear views concerning the auto-intoxication psychoses it will be necessary until we succeed in demonstrating the toxic matter etiologically important, to start from the psychic disturbances in organic diseases which lead with certain probability to the formation of auto-toxic substances. Here belong the study of psychoses appearing in uremia, cholemia, hydrops in the cachectic processes, in pernicious anemia, in diabetes, in eclampsia and similar processes.

What is thus far known about acute psychic disturbances in these diseases, shows a far reaching conformity with the psychic disturbances in toxic infectious processes. We find here the same forms of reaction which appear there, while there is nothing in these auto-toxic processes to indicate the occurrence of specific forms of psychic disease.

In my opinion we are no longer on the safe ground of experience if we speak of specific hepatogenic, renal or other auto-intoxication psychoses. In spite of that, according to the condition of present day experience we must accept auto-intoxication as the most probable cause of many processes, even when the nature of the diseased organ is as yet quite unclear.

Here we must place delirium tremens because of its psychic symptom and course picture, as well as on account of a series of somatic indices on which we need not enter here.

Peculiar conditions are perhaps met with in diseases of the glands with internal secretion. That in these cases both hypo and hyper function of the glands exercise elementary and truly specific influence on the psyche is seen in studying thyroidea, in which the hyper function leads to increased motoric and affective excitability; the hypo function to retarded action. In how far other psychotic symptoms arise in other blood gland diseases; in how far, finally, diseases in which a very essential endogenous factor surely comes etiologically in question,

as the hebephrenic and catatonic diseases, are influenced in the final instance, through disturbances of inner secretions or auto-toxic processes connected therewith, are as yet open questions.

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Rev. and resume given at the 17th Int. Congress at London.

#### NOTE MADE IN REVIEW.

(BY THE AUTHOR.)

Whether the retardation of reaction in these states can really not be differentiated from depressed, retarded states as Specht has lately maintained, seems very doubtful to me.

## SOME OBSERVATIONS ON THE SYMPTOMATIC PSYCHOSES OF THE NEPHRITIC GROUP.

BY D. G. O'NEIL, M. D.,

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ONE of the most important points of contact between psychiatrists and general practitioners is to be found in the field of those mental disorders which are definitely dependent on a specific physical disease. Among these, infection and auto-intoxication psychoses take the first place for various reasons, chief among which is the very clear and easily demonstrable relationship of cause and effect. As Bonhoeffer<sup>2</sup> says in intoxication psychoses the differentiation is made more difficult by the fact that the idea of intoxication is frequently more hypothetical and more or less broad according to the subjective views of the individual observers.

We have these psychoses associated with renal disease. It is presupposed that the metabolic principles of a normal kidney do not injure the brain cells of the same animal, and supposes that the organs of the one and same body or another individual of the same species are immune to its own metabolic products. When there is a disease of an organ with disintegration of tissue, this immunity may not suffice. Psychoses develop not only as a result of diseases of the individual organs but also in consequence of physiological processes taking place in them. Illustrating this type of injury to the nerve cells, we have the picture of the fundus of the eye in albuminuric retinitis as a complication of pregnancy or lactation, without any other evidence of disease. The picture does not differ

from the injuries inflicted on the nerve cells in nephritis. According to Bouchard,<sup>8</sup> "Man forms in eight hours enough poison to kill himself by his hepatic secretion. Now in 24 hours the urine does not eliminate half the quantity necessary to poison a man; the urine of four days and two hours would be required to do this. The volume being equal, bile is nine times as poisonous as urine; in an equal period of time the biliary secretion represents a degree of toxic power six times as great as the urinary secretion."

The disturbance of this secretion is brought forcibly to mind when we think of those confusional states associated with the atrophic forms of alcoholic cirrhosis of the liver. Osler<sup>12</sup> says, "At any stage of atrophic cirrhosis the patient may have cerebral symptoms, either a noisy, joyous delirium, stupor, coma, or even convulsions. The condition is usually mistaken for uremia. The nature of the toxic agent has not yet been settled.

It is deduced that in this class of cases the fault lies in the toxins lowering the resistance or injuring the cells of the cortex of the brain, or there is disturbance of the metabolism of the nervous system, as the views of Woskresenke<sup>10</sup> on the possible correlation of the pathologic manifestations of the nervous system with an altered composition of the brain substance. Kraepelin's experiments on the progressive dosing of alcohol form an important landmark in the field of experimental psychopathology and furnish the first definite and clearly defined signs and symptoms incident to the alcoholic. In this instance it was shown that it was not the effect of alcohol itself but rather the effects on the organs causing them to produce toxins which were injurious to the delicate nerve cells.

John McPherson, M. D., F.R.C.P., Ed.<sup>3</sup> in a paper concludes that "The confusional insanities are due to the action of poison on the nervous system, especially the



brain. Their type is delirium, no matter whether the delirium is acute and of short duration, or chronic and prolonged. They all result in an injury to the delicate structure of the brain cortex. The injury is more or less according to the nature of the poison, and according to the resistance which the brain cells offer to the action of the toxin."

Quoting Bianchi<sup>7</sup>, "The old vexed question as to whether acute delirium is a morbid entity as a syndrome occurring at an episode in various morbid states still remains unsettled. Yet were we to consider acute delirium as an expression of grave intoxication, we might have no difficulty in conceiving that it might sometimes be an illness in itself, as other times a complication of another affection. The difficulty lies in defining the cause of acute delirium, that is to say, in deciding whether it is always a specific infection produced by micro-organisms or if various pathogenic agents are capable of giving rise to it. The problem is not easy of solution, for the diagnosis of the true acute delirium is difficult. Between acute sensory delirium (grave sensory insanity) and the acute delirium that presents convulsive phenomena at an advanced stage, there is a gradation of intermediate forms that make the question of diagnosis extremely difficult. Fever, intense and acute psychomotor agitation, and complete hallucinatory disorientation are phenomena that are observed also in less serious varieties and terminate in recovery.

Dementia precox not infrequently is given as an example of a disturbance with which there are associated disorders. In a number of cases of dementia precox Koch<sup>11</sup> found unmistakable decrease in the non-protein neutral sulphur fraction in definite portions of the brain.

A transient albuminuria occurs during the course of many mental and nervous diseases and may be either accidental or renal in nature. In looking over the records

of this institution as to the appearance of albumin and casts, has led me to conclude that no definite or regular rule as to the exact time of their appearance or disappearance can be formulated in relation to the psychosis. Unfortunately the tests for albumin to a great extent have been qualitative rather than quantitative.

A psychopathic ward of a general hospital for certain cases of this class would fill a long felt need, as brought out in Dr. William A. White's<sup>4</sup> article, "The Dividing Line between General Hospital and Hospital for the Insane."

The following cases are presented:

Case of R. A.—White female, age 22 years on admission, December 30, 1913.

Family history negative. Patient is the elder of a family of two. Birth was natural. She was a healthy baby and learned to walk and talk at the usual age. She was not regarded as a nervous child. She had a few of the infectious diseases of childhood, from which she made good recoveries. At the age of six she began attending school. She had to study quite hard to keep up in her classes. When twelve years of age she failed in promotion, then being in the sixth grade. The informant attributes this to lack of study and rather poor physical health following scarlet fever. At the age of 18, she failed when in the second year of High School and repeated that year's work. In June, 1911, suffered from "neurasthenia," due to over-work at High School. She always stated that she considered High School work rather monotonous. She graduated in February, 1912. In the fall of 1912 she began attending the Normal School in this city. She was very enthusiastic over her work, and did her work in an excellent manner. She finished the first year of normal and received praise from many of her instructors. An art critic from New York who visited the school, examined her drawings and said they were the work of a genius. The mother stated that her daughter never had a love affair, and always seemed interested mainly in her school work. She

was of a sympathetic nature and very devoted to her parents.

Present Illness—She seemed nervous as early as October, 1913, and since December 1st she has not taken time to eat, but spent her noon hour making drawings at the board, correcting lessons, etc.

The first mental symptoms began about December 17, 1913. She had been unusually busy painting Christmas cards. About 12:30 on the night of December 17th, she called to her mother, who had retired, requesting her to get up and look at her Christmas cards. Her mother did not comply with this request, and she replied "You are too prosaic." Even then the loud tone of voice made her mother think that her actions were strange. She evidently did not sleep much that night, and at 3:30 a. m. called loudly to her mother. She was in the bathroom with her feet in hot water. She informed her mother she had just had a chill, and asked her to go down to the cellar and get her some whiskey. Before her mother had reached the cellar she called shrilly, saying, "Mother, I thought you had fainted." The mother finally persuaded her to go to bed. Her actions were somewhat peculiar from that time on. She marveled at the brightness of the household silverware. When her mother was making hash she thought she was chopping up a male acquaintance—Ernest G. Everything seemed strange to her. The following Sunday there was a wedding at a church. She said it was her wedding but imagined the man she was to marry had been killed. She called him Ernest. On Thursday evening she returned from school about 5:30 o'clock and Mrs. G. was calling on her mother. She was telling that her son Ernest was having an operation on his nose that day, and that his nose would not stop bleeding. Just at this point the patient entered the room and when she heard about this affair she became very pale and left the room. Trifling occurrences seemed to make a great impression on her. Later she became noisy and sang better than she had ever sung before. She would preach sermons

that she had heard three or four years ago, and would explain perfectly things that she had heard instructors lecture about some time ago.

On December 24, 1913, she was taken to Georgetown Hospital. She became more excited while at the hospital and in a few days her people took her home. She has been cared for by a trained nurse since that time.

Prior to going to Georgetown Hospital she was given several doses of hyoscin hypodermically, but this had no sedative effect whatever, but seemed to make her more disturbed.

Examination on admission showed the patient to be in poor physical condition. Urinalysis revealed the presence of albumin, hyaline and granular casts.

Mentally, she was in a state of confusion, showed great psycho-motor restlessness, had auditory, visual and tactile hallucinations. While she became quieter in the motor field, she still remained confused for about three months. Following that time, she gradually improved and at date of discharge was in a normal mental condition. She possessed insight—thought she had suffered from a delirium from which she had recovered.

R. A.—The above case presents many points of interest both to the psychiatrist as well as to the general practitioner. The latter is called in; he finds the patient in a state of acute confusion, but clearly conscious if her attention can be gained momentarily. He is told she was always nervous and excitable. Two years and a half prior she had suffered from "neurasthenia" due to overwork at High School. The first symptoms of present illness appeared two months before with loss of appetite, excessive nervousness and increased psychomotor activity. He sends the patient to a general hospital and the confusion shows no abatement, and it is found necessary to have her committed to an institution for the insane.

The psychiatrist would observe an individual who during her school life was not thoroughly efficient, having failed in promotion twice; at the age of 18 years being only in the second year of High School (tenth grade),

when the average age for graduation would be around 18. Furthermore, she always had to study hard to keep up with her classes, thought High School work rather monotonous and did not seem to excel in any particular study. After leaving High School, she entered Normal School. Then a change in her ability was noticed; she became very enthusiastic, received praise from her instructors, an art critic examined her drawings and said they were the work of a genius. Here we have a precocious make-up rather backward until she reached the Normal School when she became very efficient, but as one writer (White)<sup>4</sup> has said of this particular type, "The fire may have burned brightly but it was built of straw." Now as to the nephritic symptoms, she had scarlet fever at the age of 12 years. As is well known, nephritis of all grades is a complication of this disease. Here we have a starting point for our foundation of a symptomatic psychosis. Urinalysis a few days after admission revealed albumin, hyalin and granular casts, but later was negative, as well as each month thereafter, until discharged. On admission her weight was 98 pounds. This case was given hydrotherapeutic treatment with very pleasing results. The patient rapidly increased in weight and about two and a half months after admission had gained 38 pounds.

Case of S. A.—White female, age 31 years on admission, January 5, 1912.

Maternal grandfather died of tuberculosis and maternal grandmother died at the age of sixty-five, cause of death unknown. Paternal grandfather was insane. No history of insanity of aunts and uncles. Father is living, uses alcohol to excess. He has served several terms in jail for drunkenness and abuse of his family. Mother is living and well, uses alcohol to excess, frequently gets drunk and is quarrelsome with her husband. She leads an immoral life, is very nervous and has suffered all her life from attacks of excitement. She pulls her hair, etc. These attacks are probably due to overindulgence in alcohol. One brother is incorrigible. One



sister was a patient here on three occasions, suffering from hysteria.

Patient was born in 1880. Health good during childhood. She went as far as the seventh grade in school, and was considered an average student. She left school at the age of fifteen, and secured a position as clerk in a dry goods store, which position she retained for about three years. She married at the age of twenty; had five children, ages, eight, six, four and two years, and a baby six months old. The first two labors were difficult, instruments were used. Last confinement the labor was long but not instrumental. She remained in bed ten days. The baby was breast fed. Patient had always been of a rather excitable disposition and inclined to worry about her children. On the night of the 27th of December, 1911, the patient was noticeably quiet and sat in the corner away from the others. She did not undress that night. A few days later she began asking what time the police were coming for her children, and wondered if she had killed all her children. When she saw her children she asked if it were their ghosts. Frequently asked if her children had leprosy. She would take food only after much urging. Said if the food was poisoned she would eat it. Patient had done her own housework, and also the sewing for her children, and her sister stated that she could not account for this breakdown unless it was due to the Christmas strain. On December 31, 1911, she was taken to the Washington Asylum Hospital, her condition being such that she could not be cared for at home.

According to the patient's conception of her mental trouble she stated she had not been well for several weeks prior to the onset. She had suffered from severe headaches daily. These headaches varied in location, although as a rule, they began in the frontal region then passed into the vertex and finally settled in the occiput. She had also suffered from severe pain in her back over the region of the kidneys, in fact, she stated she never regained her health after the birth of her last child,



six months previous, although the child had been well and she had nursed it. Just before the holidays she was feeling very tired and exhausted, and had been working unusually hard, preparing for the festival. She said her mind was clear until about two days prior to her admission to this Hospital. At this time one of her neighbors came to her house highly indignant over a remark her little girl had made. She said she whipped the child severely because of this and then became nervous and irresponsible because in the heat of passion she lost her self-control. Another neighbor interfered in the punishment of the child. She then broke down and cried for hours. The patient stated she did not know what she might have done to the child had not the woman interfered. She then developed the idea that on account of this abuse her children would be turned over to the Board of Children's Guardians; later she thought her children had been turned over to the latter, and that her husband was dead. She had feelings of unreality, thought she was in a world by herself, that she could not communicate with the people about her, and that they could not understand her sensations.

When admitted to the Government Hospital for the Insane she did not know where she was, nor did she remember how she came here or when. She did not know what day it was; said she had no husband and was never married; again she said she thought she had a husband.

Physical examination showed acute Bright's disease, otherwise negative. Mentally she was confused, had deliroid experiences, was violent and destructive, and forced feeding was necessary. She had very vulgar habits and was erotic throughout her excitement. Patient was treated for the renal disease, and coincident with the disappearance of the casts and albumin she cleared up mentally. About the first of May, her favorite child, a little boy who had always been delicate, died of infantile paralysis. The house was quarantined and the child was buried almost immediately after its death, and patient was unable to attend the funeral or to see him.

This appeared to have a depressing influence upon her and she developed suicidal ideas. Urinalysis at this time again showed a large number of casts and albumin. However, she was not confused then but was apprehensive and feared impending evil. In the latter part of July she improved and the feeling of unreality had entirely disappeared.

She was allowed to go home on a trial visit in July but two days later was returned in a highly excited state. During the next two and one-half months she was noisy, destructive, untidy and violent.

Urinalysis in October showed that the casts had disappeared, but the urine still contained albumin. Coincident with this the patient appeared less confused but was still destructive, violent and abusive, using profane and obscene language.

In January, 1913, she had an attack of influenza; urinalysis at that time showed that the nephritis had cleared up; a few weeks later, however, she again became confused, and was given treatment in the continuous bath. Shortly after this she began to show an improvement. During March and April she appeared to be in her normal mental condition. She assisted with the work in the officers' dining room, and when on the ward she did fancy work and conversed pleasantly with those about her. She was oriented in all spheres, entertained no hallucinations and her memory was not impaired. Urinalysis was negative.

May 31, 1913, she was allowed to go home on a trial visit. After that time she called at the hospital about twice a month and on these visits she always appeared to be in her normal mental condition. She stated that she got along nicely at home and easily managed her work and children.

Patient was discharged September 4, 1913 as recovered from a symptomatic psychosis.

Case S. A.—In the above case we have a bad family history. Her paternal grandfather was insane, mother and father use alcohol to excess and the latter served

several years in jail for drunkenness and minor offenses. The mother leads an immoral life, one sister was formerly a patient in this institution, one brother incorrigible, another brother committed suicide during the patient's residence here.

Naturally in an individual with such a family history it is not surprising one finds her to be unstable emotionally. In fact she was always regarded as of an excitable disposition.

Several weeks prior to the onset of the acute symptoms the patient complained of severe headache, pain in back over region of the kidneys. Notwithstanding her statement that her health had been poor since the birth of her fourth child, six months previously, about two weeks before admission to the Government Hospital for the Insane she exhibited considerable motor activity, was very lively, displayed considerable interest in arranging details for the Christmas celebration.

Bonhoeffer<sup>1</sup> states that complaints of headache and residuals of retained feeling of illness frequently appear during uremic delirium. The pressure of activity can be simply reactive as that of an occupation delirium, frequently it shows pure motor accompaniments in loud noises and senseless exclamations.

He also says<sup>2</sup> that a chronic progressive psychosis does not develop from infection. The same pictures may be seen on the basis of other non-infectious maladies, chiefly of toxic and autotoxic, but also traumatic and circulatory nature. Patient was discharged September 4, 1913, after 23 months' residence here as recovered, having been out on a trial visit for three months and without mental symptoms during that period.

Case of P. V.—Colored female, age 19 years on admission, June 17, 1914.

The family history shows the mother to have died after a second stroke of paralysis. There was one maternal aunt and one maternal cousin who had epileptic seizures. There was no tuberculosis or severe alcoholism in the family.

She was sixth in a family of fourteen; birth normal and childhood uneventful. She attended school between the ages of 9 and 16. She learned easily, receiving good marks, had no disciplinary trouble nor difficulty with her playmates. She preferred the active games with the other children. When leaving school she found employment, doing general housework; kept her places for several years, rendering each employer satisfaction. In 1913 she married, one child being born seven months later. There was one miscarriage in June, 1914, brought on by hard work. Following this, the patient had a curettage under ether. While she was sick her baby was taken suddenly ill, and died the day following the operation. Her people did not dare tell her of this at first and when they did there was great emotional reaction. She begged on several occasions to see the baby prepared for his burial. At this time her husband noticed she was absent-minded and queer. This condition increased and she gradually became talkative, refused to remain in bed and was very restless. She ate but little, had been sleeping poorly, receiving for this several hypnotics from physicians. She often called her baby, and finally took her pillow, cared for it and carried it as if it were the baby she had lost. She finally refused to remain clothed, became violent toward her husband and sister, and it was necessary to bring her to the Government Hospital for the Insane.

Patient was very confused upon admission and was apparently oblivious to her surroundings. Although neither violent nor destructive, she clung to those who cared for her and refused to keep any clothing on. Her bed stand she used for various acrobatic purposes, and it was necessary to remove it from the room for fear of self-injury. She smeared the room and mattress with excreta, and threw her food about the room. She did not urinate voluntarily and it was necessary for several days to catheterize her, the result usually being 900 to 100 c. c., in twenty-four hours. Urinalysis showed specific gravity of 1030, albumin present, and granular casts. She was treated

by hot packs and in the continuous tub, and recovered rapidly from her confusion. Urine cleared up coincidentally and patient appeared practically normal. In less than a month she had a return of her confusion, when she was active, very talkative, but again neither violent nor destructive. Urinalysis again showed albumin present. From this confusion she recovered rapidly, and again appeared in a normal condition. There has been no return of these symptoms.

Owing to her confusion mental examination was not possible until two months after admission, when she was well oriented in all spheres. Insight was good. Both general and special memory fair; the responses to special intelligence tests showed nothing unusual. No hallucinations or delusions could be determined. She slept fairly well, dreamed occasionally, her dreams being brief and wish-fulfilling.

Wassermann reaction with the blood serum on admission was negative.

Urinalysis on June 19th—Specific gravity 1030; albumin present, a few granular casts. June 26th—Specific gravity 1010, albumin present, granular casts; many epithelial cells probably from bladder, some showing granular degeneration, pus cells and a few red blood cells. June 18—Specific gravity 1020, albumin and microscopic examination negative. July 24th—Specific gravity 1024, trace of albumin, and occasional hyalin casts. August 18th—Specific gravity 1022, albumin and microscopic examination negative.

Discharged recovered August 25, 1914.

In considering a diagnosis in this case the short course of the psychosis with recovery would lead one to believe it to be an infection exhaustion psychosis of the symptomatic group. Bonhoeffer<sup>2</sup> says "Chronic progressive psychoses do not develop from infection." (m)

In conclusion I would say that the diagnoses of the above type of cases are difficult and a lecturer on mental disorders once told his class, if they found the symptom complex did not fit a particular type of cases, the text



book was wrong, not the case in question. This leads one to ask, are these cases precox or symptomatic psychoses with reactions peculiar to the individuals? Herbert Spencer<sup>9</sup> long ago showed that our life is a series of constant adjustments of internal relations to external relations. In our abnormal cases these relations are now considered and we use the adjective "psychogenic" to describe them.

In a recent article Bonhoeffer<sup>2</sup> says, "The differentiation of many infection psychoses and processes belonging to dementia precox is not always possible without close study, but it need not follow from this, as Bleuler seems inclined to think, that they must therefore belong to Schizophrenia."

He states that in his opinion we are no longer on the safe ground of experience if we speak of specific hepatogenic, renal or other auto-intoxication psychoses. In spite of that, according to the condition of present-day experience we must accept auto-intoxication as the most probable cause of many processes, even when the nature of the diseased organ is as yet quite unclear.

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# PREVENTION OF GROWTH AND EXTENSION OF CARE OF OUR FEEBLE-MINDED POPULATION.

BY MARTIN W. BARR, M. D.,

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Minded Children.

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**P**ROBABLY no subjects have, within the last decade, given rise to opinions more widely diverse than have the enforcement of eugenic marriages and the sequestration and sterilization of mental defectives.

The laudation of these, in the most extravagant terms, by some, and the equally bitter decial by others, both show ignorance of true conditions; conditions which should be viewed equally from a common-sense standpoint. The guide to this is the fact now made prominent, that every community has feeble-minded members unprotected and at large.

Now the law of life, inexorable as death itself, must be obeyed; and can be neither broken nor evaded. If defectives are allowed unrestrained marriage or free cohabitation, the consequent social devastation, as entire as that of a hurricane, must be inevitable, leaving behind ruined homes and Living Death where Living Life should be.

After all, these Children of a Day—for so they are even though they have passed the meridian of life, with no past, no future and only the present theirs—are only human, and passion unguarded by normal intelligence leaps, as does any other predatory animal, to the imperious call of sexual desire.

What is needed is to educate the public to such a realization of this, that society will not only co-operate with charity in the care of the helpless, but will demand for itself, protection from contamination and for the infusion of impure blood.

Charitable societies may try to reclaim unfortunates, especially women, when once they fall, but can never place them where they were before, or restore what they have lost. These stand in the pillory of their own past lives and can never alter their present state. For them, all the tears of the river Cocytus or the sighs of the river Acheron avail nothing.

In a study of harlots numbering 424—80 per cent. plus, were found to be distinctly imbecile, their mental age never exceeding twelve years. The 20 per cent. adjudged normal were found to be unable to carry on a consecutive conversation, and, never reading papers or books, were absolutely ignorant of the ordinary topics of the day. A large majority of the whole had contracted venereal diseases, and were pronounced alcoholics and drug fiends.

Recently my attention was called to a family in which there were 22 imbecile children, both parents being feeble-minded; and to another where there were 18 idiot children—also of defective parents—the community in which these latter lived, taking pride in exhibiting them as curiosities. Surely some one should have suggested that these cases required surgical as well as custodial aid; yet no steps had been taken to such end.

In two studies made in the juvenile court, the first, numbering 759, shows 75 per cent. imbecile. In the second, out of 728 cases, 47 per cent. were also found to be imbecile beyond a peradventure, their mental ages ranging from  $7\frac{1}{2}$  to 11. Of these, over 50 per cent. were suffering from venereal diseases.

At a hearing in court where it was shown desirable to retain within an institution, the sister of a harlot, a feeble-minded girl of fairly attractive personality with exaggerated sexual impulses, the judge felt that she should

be discharged to give place to another, but, as she was only 18 years of age, he, after consideration, ordered her detained for a year or two longer. He would not agree to indeterminate sequestration, and even when urged that for the sake of posterity it was best to retain her permanently, he replied that that could not be considered; as on that plea many persons could be separated from the world entirely.

And well they might be, when we consider that the State of Pennsylvania alone numbers over fifteen thousand avowed imbeciles, an increase of over five thousand in very few years; of these less than three thousand are cared for in institutions at a cost to the State of \$627,255 per year.

The courts simply do not go far enough back; they fail in that they do not reach the inception—the root of the matter. They often punish without careful investigation of the causes from which criminal instinct springs—the environment, family history, inherited tendencies, physical disability and that susceptibility to suggestion which makes them the ready tools of the vicious.

In the case of Roland Pennington, tried in Media last June, for aiding in the murder of a man, it was proven that the boy, although almost twenty in actual age, yet coming from a neurotic stock, with three first cousins imbecile, had mentally only attained some 11 or 12 years; still he was adjudged responsible and murder in the first degree was the verdict.

Is it not a poor law that first permits a person to commit a crime, and then punishes him for it, not recognizing that an ounce of prevention is worth a pound of cure?

Pennington had sufficient intelligence to comprehend the enormity of the deed, but, susceptible to suggestion in exaggerated degree, he had not sufficient inhibition to resist the volitional act.

Early recognition of his mental defect and separation would have protected him alike from tempter and temptation.

Of those confined in penal institutions, at least 40 per cent. are feeble-minded, and crime increases naturally with the unrestrained increase of such authors, misnamed criminals.

Reports of last year show no less than 9000 murders committed in the United States alone!

Among many homicides noted throughout the world within the last century, many high in authority have been the victims: 3 presidents of the United States; 20 royal personages; 16 viceroys, premiers, presidents of South American republics, etc.: and some 32 attempted assassinations of kings, presidents and governors were frustrated.

What might not humanity have gained had the mentally unbalanced perpetrators been recognized and sequestered in youth—protected from the world, and the world from them?

In the year 1893 in one hundred American cities, presenting a population of fourteen millions, there were 2,100 suicides; in 1903 one hundred cities, numbering eighteen millions, show suicides 3,500; in 1912 in one hundred cities aggregating twenty-three millions, the suicides were 4,400.

In this is noted a doubling of numbers in less than twenty years; and an undoubted increase of degeneracy in this decrease of courage and self-hood.

The percentage of mental defect among the foreign element in the city of New York, where our immigrants are mainly admitted, is 2.48 times greater than that of the native-born. A study made there in 1912, of the alien insane and feeble-minded cared for in the state hospitals, shows no less than 13,163 foreign-born patients.

For these, at a cost of \$262 per capita, the annual expenditure amounted to \$3,448,706, and as the average hospital age is eleven years, the sum of \$37,935,766 will have been paid by the state at the end of that period for the care of mentally defective and diseased aliens.

Throughout the entire United States no less than \$94,000,000 is annually spent in the care of the insane, and \$90,000,000 for the feeble-minded; making a total

of \$184,000,000 expended yearly upon our ever-increasing helpless population.

From this brief scanning of statistics, showing startling increase in numbers, in vice, in crime, in pauperism, one cannot fail to recognize the necessity for the enforcement of measures which experience has demonstrated as absolutely needful steps toward prevention, viz: the Sequestration, Separation and Asexualization of degenerates, and further revision of Marriage Laws.

Sequestration protects society from contamination and removes the defective from a world where he is forever misunderstood and driven backward—be it in the home, the school or in business circles—wherever he is brought into competition with normal people.

In order to effectually accomplish these aims, sequestration must be permanent, otherwise the trained imbecile is a greater menace to society than is the untrained, in that with latent powers and talents developed to the point of concealing defect, he is no longer recognized, and has opened to him a larger field for the indulgence of emotional or criminal instincts.

Training schools for defectives, without the protection of permanent sequestration, find themselves often twice defeated in the aim of preventing increase and lessening crime; and by the loss of their trained laborers aiding in self-support and in the care of the helpless. For this evil, legislation offers no remedy, no state in the Union providing for indeterminate sequestration.

Separation, first, of normal from backward children in the schools; second, the massing in classes those of similar mental capacity, that they may be trained in occupations proven possible for them—industrial, manual, or intellectual—such as farm and house work, shoe-making, carpentry, dress-making, painting or printing, in these aiding also in living expenses.

Asexualization has at last won its way to legal recognition as the only assured means of dealing with present numbers, not only preventing increase but, by lessening the exaggerated sexual impulses, contributing



to the happiness of the individual, thus insuring a certain amount of freedom in home or community life.

In this matter the past decade seems to present a new trend of thought, in that what was formerly termed brutality, is beginning to be viewed as the truest safeguarding of the innocent, and the preservation of nations from racial degeneracy. Some 12 States have concurred in affirming the necessity for sterilization; Indiana leading the way in finally gaining the endorsement of legislative action, in which Pennsylvania had thrice been defeated.

The application of the principle in these states cannot fail to correct prejudice and misunderstanding in the mind of the general public, making clear the nature and simplicity of the operation, involving no danger and almost no discomfort to the subject, and insuring benefit to all.

The removal of the organs is not always essential, but is to be preferred as giving absolute security, and when performed upon youth, desire almost entirely ceases, or at least is held in reasonable abeyance.

There is no reason why the operation should not be so safe-guarded as to prevent license. It should be permissible only after study of and testing by accredited alienists and surgeons, and this is best attained in the grouping of numbers by separation and segregation.

In the reconsideration of marriage laws, progress is also shown in that a large majority of the States—some 38—make proven defect in either or both parties, a nullification of marriage; but none as yet require for obtaining a marriage license a certificate exhibiting a clean bill of health for two generations back; notwithstanding the large number of cases recorded, showing the reappearance of unsuspected defect, usually intensified, in the third or fourth generation.

It has been urged that stringency of marriage laws would encourage vice; but why not make illicit cohabitation with a defective a penal offense, as does the "Mental Deficiency Act" recently brought into operation in England?



It is to be hoped that the day is not far distant that shall bring a consensus throughout the union, regarding the prevention of procreation by the unfit, as absolutely necessary to stem the tide that is polluting the race.

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REMARKS ON INTRATHECAL INJECTIONS AS A  
FACTOR IN THE IMPROVEMENT OF  
TABETICS AFTER SALVARSAN.\*

BY DR. TOM A. WILLIAMS,  
Washington, D. C.

THE pathology of Tabes was shown by Nageotte in 1894 to be a granulomatous radiculitis years before the discovery of the tropanema pallidum and therefore not para, nor meta, but syphilitic. "In the Pathogenesis of Tabes" (Jour. Amer. Med. Sciences) in 1908 I attempted to show to the American medical profession the facts upon which they could base its treatment, which I have been conducting successfully since coming to Washington in 1907. I tell this so as not to be accused of reactionarism in what I shall say.

CLINICAL. It has not been shown that intrathecal injections, by the Swift-Ellis method, are superior to intensive treatment by other channels. For instance, Sachs and Strauss reported to the Amer. Neur. Soc., 137 cases treated since 4 years with almost uniform success. Upwards of 60 cases, following my recommendation, have been treated with complete disappearance of pain and relief or disappearance of ataxia, according to the intensity and duration of the disease. Babinski and Abadie in France had been using mercury intravenously with some success years before salvarsan was introduced. Since then Sicard, Ravaut and others have corroborated them. Since salvarsan, numerous German observers reported numbers of successfully treated neurological syphilides. In none of the above results was the intrathecal method employed.

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\*Read before Pa. State Medical Association, Sept. 1914.

Two of my own cases exemplify the kind of result obtained: Both were treated by their own physicians.

CASE I.

A lawyer from Pennsylvania had had pains treated as rheumatic for 6 years; latterly these had increased and some numbness and unsteadiness in gait and mictional difficulty had supervened. His left eye and ear too were losing function. When he was referred to me, I found the left patellar and Achilles reflexes absent; the left pupil dilated, irregular and paretic to light, the pain-sense dull and delayed in the lower limbs and thorax; tremor of the tongue; slight slow nystagmus; slowed diadicokinesis, a stamping and occasionally uncertain gait, with left Rhomberg; the Wasserman reaction was negative, but in the cerebro-spinal fluid we found 38 cells per c. m. and an increase of protein. He was given four injections of mercury and two of salvarsan. At first the pains were increased, but they quickly ceased. Forty days after, there were only 13 cells per c. m. in the spinal fluid; five months later, the diadicokinesis was normal, the gait was improved, there was less tongue tremor and no nystagmus; the sensibility except in the left tibia had returned, although the left pupil had remained paretic; but the pains, having returned, were quickly dissipated by salvarsan, and he was urged not to neglect the injunctions as he had done. The following year he again returned for examination and only 9 cells per c. m. were found in the fluid. Although he had practically no further trouble he was again given salvarsan twice. It is now two years and a half since he was first seen and he remains quite well without any ataxia.

CASE II.

Two years ago I saw a woman in W. Virginia who had been treated 6 years for rheumatism at Clifton Springs and other places. She showed great loss of weight and strength, marked ataxia, almost complete loss of pain, vibration and attitude sense of the lower limbs, as well as loss of the tendon and pupil reflexes.

She was recommended salvarsan and mercury, against the opposition of several physicians. I saw this patient only a few weeks ago and although she has had only four periods of treatment of two salvarsans and from four to six weeks of mercurial injection in each, she is perfectly well,\* at normal weight, save for the lost reflexes and a slight sensory loss in the tibial border of the feet, and can work with enjoyment again.

#### LABORATORY.

Firstly: Benedict analysed 20 samples of serum obtained for Swift-Ellis treatment after the injection of salvarsan and only in two did he find a faintest trace of arsenic. Therefore we can exclude an arsenic effect in the discussion of the manner of action of intrathecal injection of serum. Besides this, this serum produces no improvement unless salvarsan is introduced into the blood also; and normal serum is declared to have no particular effect. On the other hand, arsenic has been found in the cerebral ventricles after intravenous injections of arsenobenzol.

Secondly: The disease process is not confined to the surface of the meninges; indeed it is most marked around the blood vessels, many of which are deeply situated. The tissues around these are nourished from them and not from the cerebrospinal fluid. But foreign substance in the thecal sac may irritate the pia arachnoid, thereby inducing hyperaemia of the meninges, the increased exudation from the vessels of which of serum laden with arsenic from the preceding intravenous injection, is the explanation, if there is any advantage at all in the method of Swift-Ellis. Sicard and Raveau indeed have been using injections of weak salts of mercury or magnesium along with mercury intravenously with some success, whether with greater success than by administration through the blood alone, only a large number of observations can show after much time.

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\*Of course I do not pretend that these patients are entirely free of syphilis. They will probably require periodic medication just as experience is showing to be the case with patients reported cured by intrathecal treatment. I have already seen or been consulted about many such relapsed here and in the West.

It must be remembered that all the cases which have shown improvement after being treated intrathecally have received intravenous treatment as well, and most of them large amounts frequently repeated. It is to this latter that we must attribute by far the most of the improvement of such cases.

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## A ROUND FOR RADIUM.

BY DR. HEBER ROBERTS,

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Formerly Surgeon to Illinois Central Railroad and Northern Pacific Railroad; Founder and Editor American X-Ray Journal; Ex-President Roentgen Ray Society of America; Member Roentgen Ray Society of London (England); St. Louis Academy of Science; St. Louis Medical Society; Missouri State Medical Society; Fellow American Medical Association; Author of "Radium Light;" "Practical Radium;" Etc.

**I**T was the ninth day of June of this year when I left Belleville, Illinois, for the purpose of procuring more radium and for the purpose of acquiring more information concerning its output and its uses. I was not a stranger to radiumtherapy because in 1903 I went to the mines in Joachimthal and scoured Europe for radium and for information, repeating this excursion in 1906 and 1909. On each occasion I brought radium to St. Louis, and at no time since 1903 have I been deprived of the use of radium, and scarcely a year has passed in which I have failed to contribute something to the literature of radiumtherapy.

My acquaintances made with the early workers with radium have been renewed by subsequent visits, and it is significant to note that these men, many of whom were eminent in the medical profession before the days of radiumtherapy, have remained steadfast in this field of labor. They have remained steadfast because the cures effected by radium were impossible by any other known means.

### SPRINGFIELD

In Springfield, Illinois, Dr. Fred S. O'Hara is using radium in a very limited way because he has been unable



to buy a sufficient quantity. The only tube he has I gave him in 1904, and this tube contained about three milligrams of radium element. He used the tube successfully on warts, moles, and small rodent ulcers. The tube was aluminum, with thin walls, and contained anhydrous bromid of radium naked. It was supported with a six-inch silver stem. The tube was used without protection and without screens, and applied direct to the tissues. About the full energy of the radium was thus secured, but the tube was impaired by the disintegrating effect of the radium on the aluminum. The doctor has gone extensively into the use of x-rays. He is doing most beautiful picture work, and has recently made a class of radiographs which have surpassed in definition those so highly extolled in a recent issue of the Archives of the Roentgen Rays. His interpretation of ulcers and of cancers by the opaque meal is recognized not only as original, but correct. His laboratory is worth visiting and his teaching is of high order. He speaks several languages and is a most gracious and fraternal fellow. He was recently chosen to preside over the Sangamon County Medical Society.

#### CHICAGO, DETROIT

Chicago, with a population nearly equal to Vienna (2,500,000), is moving steadily forward and doing good work with the small quantity of radium the physicians have been able to obtain. I did not see Dr. Frank E. Simpson, who has reported a number of interesting cases treated with radium. The doctor believes that some cases do better when a single massive dose is used, while other cases do better with fractional doses, and, therefore, cases should be selected. He adheres to the flat-surface applicators.

There are a number of physicians using radium in Chicago, but the quantity in any case is too small to do deep work.

The application of x-rays has not made much advance therapeutically over the work done several years ago. Dr. W. A. Pusey has done a great deal of good

work and deserves credit for pushing the therapeutics of the rays during the days it was so much discredited.

In Detroit, where there is very little radium, Mr. Ford has set aside a large fund for the purchase of the article. The x-rays are used quite extensively, but timidly.

#### PITTSBURGH

Pittsburgh is the home of the Standard Chemical Company. The company is the owner of a great many carnotite claims in Colorado and Utah—probably 200 claims. The crude ores are sent to Cannonsburg, Pennsylvania, for mechanical preparation, and probably for some chemical treatment. The concentration is then sent to the office and laboratory building at Forbes and Meyran Avenue, Pittsburgh, where the operation consists of (1) gross, (2) fine, (3) and definite fractionization.

Radium is extracted in large quantities, and is standardized by a tube of radium which has been standardized by the tube of radium of the Curie International Standard. This is also comparable with the Washington Standard, which was taken from the Curie Standard.

Carnotite ores from which this radium is obtained carry about one and one-half per cent uranium, and the amount of uranium in any ore determines the amount of radium present. Three million grains of uranium in any ore, for instance, would indicate the presence of one grain of radium. It requires, therefore, about thirty tons of carnotite ore to yield one grain of radium. The pitchblende ore of Joachimthal, Bohemia, Austria, yields five grains to the ton, but the radium is more difficult to extract.

The Standard Chemical Company is selling radium element at \$120 a milligram. It has been said that the price will go to \$200 a milligram in January, 1915. It has been said the price will go to \$500 a milligram within two years, if sold at all. The plan will probably be to rent radium.

The building composing the office, chemical laboratory and biological departments is one of the most beautiful and best appointed in the world. The cost of the prop-

erty belonging to this company has probably reached an expenditure of a million dollars, and is mostly owned by Mr. Joseph M. Flannery and his brother. These men deserve credit because they have done something. They have given us radium from the ores of our own country, and they are providing more of this most useful of all health-restoring substance than any other organization or any other country; they are sending literature to physicians and selling to physicians only; they are genial gentlemen and provide every possible opportunity for instruction to physicians who call; they have employed Mr. Charles H. Viol, physicist, who has given us the most distinctive intelligible literature pertaining to the nomenclature of radium; Dr. Frederick Proescher, the well-known biologist, and Dr. William H. Cameron, who has charge of the therapeutic phase of radium.

I saw some of Dr. Cameron's good work in the Pittsburgh Hospital. One case of cancer at the base of the tongue was treated with the usual method of screening with lead. The applicator was placed immediately upon the diseased surface. After sixty days treatment the patient expressed himself relieved of all symptoms of the disease. The doctor has made some use of radium by giving it internally. Reaction has been observed, but there was not enough data to form an opinion. The ingesta of radium is not new and it was suggested in a lecture given by Sir Oliver Lodge in 1902.

Dr. G. C. Johnson and Dr. Russell H. Boggs were early members of the Roentgen Ray Society of America, and their enthusiasm for x-ray work has never waned. They found a large field for the therapy of the rays and have from time to time published their mode of applying the rays. Pittsburgh is indebted to these doctors for what has been done in the city on the subject of radiant matter.

#### WASHINGTON

The interest Washington presents to the radium world is known through the Bureau of Standards. This is located in the historic hills of Chevy Chase, a suburb

of Washington city proper. The Government has built a large and handsome building. The building is well equipped with modern apparatus, under the directorship of Dr. N. Ernest Dorsey. I cannot refrain from mentioning the great satisfaction one has in visiting this department of our Government, because it is in keeping with the high standard of fellowship and attainment met with throughout Europe. Dr. Dorsey is eminently qualified for this position, and adds prestige and strength to the department. One who has "made the rounds" knows how good it feels to meet intelligence and courtesy.

This is where the radium tube is kept which was standardized by Mme. Curie from the tube of the International Radium Standard, and is in the exclusive care of Dr. Dorsey. This office means something to American physicians. Any one can send radium to this office, or Bureau of Standards, and have it standardized. The cost is so small, in comparison with the cost in foreign countries, that one can afford to know the amount and strength of the radium he has. The minimum price is five dollars and ten dollars for twenty milligrams. It was a surprise to learn of these low prices, and certainly a very grateful surprise. In London the price is about twenty-five dollars and in Paris the price is about forty dollars for quantities less than one hundred milligrams.

This is the spirit of justice which prevails in the department of the Washington Government. This fairness is so general one can feel that no injustice will be inflicted on anyone should the Government withdraw from entry, or by any other means control, the lands and the output of uranium-bearing ore of our country.

#### BALTIMORE

Dr. A. Le Roy Reuss and wife, of Belleville, Illinois, accompanied me to Dr. Kelly's office and institution in Baltimore. The institution consists of two joining residences, located in an attractive resident section on a parked street. Dr. Kelly was out of the city but Dr. Burnham, who is really the inspiration and informed physician on all that pertains to radium here, showed

us every courtesy. Dr. Burnham is a surgeon and associated with the Johns Hopkins Medical School. The doctor had unfolded for our inspection twenty-four radium tubes valued at \$100,000.

For treatment purposes these tubes are clustered together with a covering of gauze one inch thick, but the little glass tubes containing the radium are concealed in either lead or silver containers. This clustered quantity of radium is possessed of great activity. In applying radium, this entire amount is retained over the diseased area for several hours at a time. The tissues are protected with a screen of moderate thickness—the distance of the tubes from the screen determines the density. Single tubes are seldom used—massive dosage is the slogan, and is relied on for efficient results. Deep penetration is obtained and abundant radiation secured over tissues, sometimes beyond the limit of diseased cells. He does not encourage local irritation, but he attempts to repress the stimulating action on sarcomatous cells which follows feeble irradiation. The doctor told us he had seen fibroid tumors disappear after one treatment. Applications to cancers are interrupted by several days. We saw one case of cancer of the tonsil and two of the larynx, all of which were inoperable at the time they were presented for treatment. Thirty days from the first treatment the patients told us they were relieved of all smothering and difficult swallowing. Scarcely a sign of the disease was visible, and the glands which were enlarged and prominent had now disappeared. No attempt was made to treat these cases with direct application of radium to the sore or tumor, but reliance was placed on results obtained from the rays penetrating the skin. A case of advanced Hodgkins disease had been under treatment three months. This case came to the institution assisted by an attendant, the disease had been progressing two and a half years, and had been subjected to all kinds of treatment. When Dr. Burnham saw him, he was covered with tumors, some having grown to the size of an orange. Sections of the tumor taken from between the ribs



showed the cells of sarcoma. Massive doses of radium had caused the tumors to disappear, although there remained a mass covering the right groin and inner aspect of the thigh. The patient had gained thirty pounds, had a good appetite, was free from pain, had regained strength, and said he "was feeling very well." Dr. Burnham told us he could see that radium would force a definite and radical change in surgical procedure, especially in the treatment of all malignant diseases, fibromas, tuberculous joints and glands, arthritis deformans, angiomas, and portwine disturbances. This statement is quite significant and authoritative when made by so prominent a surgeon.

#### NEW YORK

Dr. Robert Abbe was in Europe, looking for more radium, when we called at his office. Dr. Abbe has practiced surgery forty years, and is senior surgeon of St. Lukes Hospital, New York City. He was one of the earliest workers in the field of radium, and his interest in radium has increased year by year. Radium in his hands has saved many cases from the knife and added years of life and comfort to patients.

He recently testified before the Committee on Mines and Mining of the House of Representatives. After referring to some of the dreadful types of cancer in which surgery had failed from the beginning to the end, he said: "Now we are going forward from that. Sometimes surgery cures the patient; it never cures the disease; it only removes it. This is the starting point." He says: "With radium the cells are reduced to their normal growth; in other words, we have cured the disease instead of simply removing it." Again: "A tumor is simply an overgrowth of the cells that are normal to the part which it invades. It starts locally as one cell, begins to double, then quadruple, and soon multiplies, so that in a few months it has become a tumor of cells. You reduce these cells by applying radium. Bone becomes healthy again, an eyelid is restored, the lips are healed.



We have not been able to attack the largest types of tumors satisfactorily because we have not enough radium."

Dr. Abbe exhibited wax models made of cancer cases when taken for treatment, when made during the course of treatment and again made when the cure was effected. Of a malignant sarcoma of the jaw he said: "I put radium in the tumor and left it alone, and the malignant growth went back to normal. Nothing else was done. That illustrates the type of its influence in a relatively small way, but still nothing surgery has ever done can touch it. It is not imaginary—it is the real thing." Cases cured ranging in years from early life to ninety-three years of age were exhibited, and he told the committee: "In all the history of surgery nothing has happened like it." Every physician before the committee testified in the same vein.

Dr. William J. Morton, as usual, was busy in his laboratory, but he received us with benevolence—the dominant characteristic of this great, good man. Dr. Morton was the first to use the emanation of radium internally. At the time its use was suggested by Sir Oliver Lodge and by Sir William Ramsey, Dr. Morton was giving the emanation to his patients. Certain substances, as bisulphate of quinine, uranin, fluorescein and rhodinal, give off fluorescent light in the presence of the emanation. A fluorescible substance ingested with the emanation reaches the circulation and bathes the remotest tissue with fluorescent light. The benign effect of fluorescent light is now nowhere denied. The doctor is treating cases with radiferous colloidal substances, used locally and by injection. By this method the radium itself is conserved. Carcinomas of the breast have shown marked improvement with this mode of treatment. Dr. Morton's case of spontaneous fracture of the humerus resulting from a bone sarcoma of eighteen months' history, completely united after imbedding between the fractured ends of the bone a glass tube of low-grade radium. The tube remained in the position it was placed for six con-

tinuous weeks. The function of the arm was completely restored.

Dr. Cole is doing some advanced work with the x-rays, and expresses himself emphatically favorable to the Coolidge tube. The doctor has five of these tubes, and one of them has been used five thousand times. His therapeutic and diagnostic work is of high order. The doctor is technical and methodical and leaves as little to chance as possible.

#### LIVERPOOL

We arrived in this city on the 22nd day of June and it was my seventh visit here. Radium is used here in very limited amount because it has been impossible to obtain it.

#### MANCHESTER

In the evening of our arrival in Manchester—June 23—there was a public meeting which had been called for the purpose of raising a fund of \$40,000 with which to buy radium. Representatives were appointed at this meeting to go to America and to the Continent to secure future outputs of radium. Professor Rutherford (now Sir Ernest) spoke at the meeting and encouraged the subscription. Dr. Dawson Turner, of Edinburgh, was also present. It was reported here that the Pittsburgh producers had offered radium to European buyers at \$90 a milligram. I was afterward shown correspondence which disproved the report. In fact, the insurance and express charges from America to England were added to the price charged American citizens.

On the morning of the 24th of June I asked Professor Rutherford to clear a point in the physics of radium because it pertained to therapy, and said: "All, or nearly all, writers on radiumtherapy dwell heavily on the necessity of more screening, so that no beta rays can penetrate the tissues, depending, as is alleged, on the gamma rays for therapeutic use. I should like to ask, Does the beta ray appear in every tissue penetrated by the gamma ray, regardless of screening?" He replied, "Yes; three millimeters of lead will screen all the beta rays from radium,

but the gamma rays in their flight through tissue produce hard beta rays in great numbers along their course and to the end of their penetration. Ionic metal is also produced in the tissues."

#### GLASGOW

We met Professor Frederick Soddy, of the department of chemistry in the University of Glasgow. The professor told me that the probable curative properties of radium resided within the alpha and beta rays, but the alpha particle is scarcely available. The beta ray appears always with the gamma ray, and the liberated electrons could be relied on as the health-restoring element. These secondary rays produced by the gamma rays are not the secondary rays spoken of as "rayon de Sagnac," which appear just beneath the screen and are soft and easily dispersed. A sheet of rubber or a few sheets of paper will take care of them.

Professor Soddy deplored the scarcity and high price of radium. He has one grain of radium, but he has been able to borrow from the Austrian Government for experimental purposes.

Professor Soddy has been recently elected to the head of the department of physics of the University of Aberdeen.

#### EDINBURGH

Dr. Dawson Turner has a department for radium-therapy in the General Hospital of Edinburgh. He has done some splendid work with only twenty milligrams of radium element. He showed us a case of inoperable recurrent carcinoma of the breast. Upon the largest node he placed the twenty milligrams, allowing it to remain three days. The radium was in glass tubes and these were in silver receptacles. There were three tubes which were bound together with gauze and placed in a rubber covering. The bindings probably separated the radium one-half inch from the tissues. The patient, a woman about fifty years of age, told us before the application of this radium that it was difficult for her to breathe, was in constant pain, and constantly losing weight, while her arm was

swelling day by day. Since the radium treatment all the evil symptoms were subsiding. We saw the place when the radium was removed, which had an ulcerated appearance, but the tumor had utterly vanished. Difficult breathing in these cases is due to effusion in the chest and to the interference of the function of the lymphatic glands, and radium relieves this condition. The doctor has recently written a book entitled "Radium; Its Physics and Therapeutics."

#### LONDON

We were in London from June 27th to July 2nd and I was again in London from July 26th to August 1st. This great city has quantities of radium in many hospitals and in private hands, yet every hospital and every doctor who has radium wants more.

Sir Mackenzie-Davidson was the first physician in England to use radium and the first to publish his observations. Dr. Sequeire was a close follower. Dr. C. R. C. Lyster began using pitchblende from the mines of Joachimthal in 1903. The pitchblende was made into a paste from an impalpable powder. He used this with success in selected cases of lupus and rodent ulcers. A separate building was put up for his work on the grounds of the Middlesex Hospital. The good work he has done for humanity has been further appreciated to the extent of providing ample room in the main building for the use of radium, x-ray, and electrotherapeutic department.

At the recent Clinical Congress of North America Dr. Sequeire presented in one clinic thirty varieties of diseases which properly come under radium treatment, the x-rays, or Finsen light. Photographs taken of these cases at the beginning of treatment and present appearance reveal a powerful lesson. Some of the most dreadful pictures show almost no scar tissue when cured by this treatment. What a revelation and glory these agents have bestowed on us, and especially when compared with surgery. Dr. Sequeire has a very large store of therapeutics from which to draw. In addition to a good supply

of radium, extensive x-ray appliances, and the most elaborate Finsen light equipment, he has electrical methods, which are used when indicated. In this magnificent hospital—the London Hospital—I was particularly interested in the method of selecting cases suitable to the agent employed.

Dr. R. Blackall is in charge of the x-ray department of the London Hospital. The doctor is one of the pioneers in this field, and shows it. Dr. Blackall, bearing scars from early service, has arranged for defense against any future trouble or annoyance from ionized atmosphere. The operative work and tube is in one room, and the generating apparatus and attachments are in a lead-confined room above. Lead glass covers all portions where observation is necessary. The operator is in an open corridor, detached from all connection. Automatic bells ring off the time set for exposure, and an automatic cut-out is attached to the switch. It is only necessary for the assistant to enter the room to arrange the patient, while the operator directs detail and watches the course of treatment through lead glass. The doctor uses an apparatus to steady the part under treatment. All tubes are screened. A number of these x-ray machines are operated at the same time.

The sixteen Finsen lights given to the London Hospital by Queen Victoria are in constant use on lupus vulgaris cases. Radium is used for all cancer cases and x-rays for ringworm, eczema, extensive rodent, and all forms of tinea resulting from fungi. Tinea tonsurans is generally cured by one treatment.

The London Cancer Hospital is modern in every detail, and is one of the best places in the world for students to obtain general information. This is where the great Miles does the "Miles operation." This is the most extensive surgery successfully performed and one marvels when seeing it done, but the final disposition of the patient is not less marvelous. It is reasonable to believe that prophylaxis will, at some future time, dispose of the need of surgery in all these rectal and sigmoid



cancers. Our greatest American surgeon, Dr. John B. Murphy, stated before the Clinical Congress of Surgeons that material for his joint surgery would gradually disappear as prophylaxis was better understood.

The Radium Institute, endowed by Sir Ernest Cassell and Viscount Ivegh, is the most thoroughly equipped of any institution for exclusive radium treatment. The institution has about two grams of radium, which exceeds that owned by any other institution, except the Academy of Science in Vienna. A. E. Hayward Pinch is the medical superintendent, Lister Alton is in charge of the Institution, and Dr. J. E. A. Lynham is in direct supervision of technical detail. Pay patients are received in the morning and clinical patients in the afternoon. Physicians can visit the institution at any time by appointment. All their work is open and free to the profession. Dr. Lynham should be asked for, because he is familiar with the physics as well as the therapeutics of the rays.

Screening is a feature in therapeutic procedure when radium is used, but not so with the emanation. The institution has about ten grains of radium in solution, from which the emanation is obtained. Six receptacles hold the solution, and from each an apparatus is provided to collect the emanation in ampules. These glass ampules are so small that their caliber is scarcely visible. The emanation, however, is so much more radioactive than radium that the invisible amount does the work of a quantity of radium. These ampules are inserted into tumorous cancers and remain indefinitely. Since the activity is half gone in less than four days, other ampules can be used if desired. Some of the alpha particles pass through the thin glass, as do also nearly all the beta rays. The efficiency of this mode of treatment is apparent, but its efficiency over massive doses externally applied is to be determined. The emanation is, however, always available from a grain or two of radium.

The great work accomplished by this institution was first reported in the *British Medical Journal* of January 25th, 1913, covering twenty pages, and the second



report appeared in the same journal and also in the London Lancet of May 23rd, 1914. These are the most technical and complete reports ever published on radium-therapy. The two reports cover 1,629 cases, and include about every organ and tissue of the human body, internal and external. About fifty types of diseased conditions were treated with radium.

#### PARIS

The foundation for radiumtherapy was laid in Paris by Dr. N. Danlos in 1900. In 1906 the Laboratoire Biologique de Radium was founded at 41 Rue D'Anton. This was a private concern with the object the name signifies and also to receive pay patients. This is where Dominici wrote his physiology and internal pathology, and is the place where he made the most remarkable histological discoveries. His findings of the conduct of cells, normal and abnormal, under the influence of radium has greatly enriched our knowledge on the course of disease. At no other time in history have histology and the specific action of an agent affecting the changes in a cell, from its beginning to its end of evolution, been so distinctly set forth. Beginning with life as high up in the scale of development as the cells, the action of radium on them has been watched so closely that now we know which cells grow and which cells die; better than this, we can direct the course of the life of the cells. Radium can be so used that enfeebled cells are activated to the point of resisting disease, and malignant cells put through an alternating evolution until they become part of the living body.

In the book entitled "Radiumtherapy" Dominici took the part above mentioned, Wickham and Degrais took the part of external pathology, physics and chemistry. I met Dr. Wickham at the above laboratory in 1909 just before the publication of his Radiumtherapy; his lamented death occurred in 1913. On the occasion of my last visit to the laboratory Dr. Degrais was present and handed me, with his written compliments, the last book written by Wickham and Degrais, "Radium and

Cancer, 1913." I also met Dr. Dominici, who gave me cordial attention. Dominici and Degrais are associated at this laboratory. They keep an illustrated record of all cases which is wonderfully interesting and instructive. Their method of treating patients is wholly original—including the work of Danlos and Wickham, which is, of course, characteristic of the great French people. Screening is always done, and they are the first, with Wickham, to measure the rays in therapeutics. The maximum raying which they have at their disposal, with an abundance of radium, is screened with more lead than is necessary to stop all the beta rays—they sift the gamma rays. Radio-excitement is discouraged and the rays must not stop short at cellular hypertrophy. The dose must be sufficient for the new evolution which is of a curative nature.

The Bank du Radium, 13 rue Vignon was founded for commercial purposes, and is now more than eight years in business.

I have always bought my radium from the old Rosseau firm, of which Mr. Jacques Honogger is manager, because I was directed to this firm by P. Curie in 1903. The grade of radium sold to me has always stood the test.

Le Materiel Radiologique, 95 Saint Michel, is an institution for the sale of radium, radium applicators, and electrosopes.

There are a number of companies in Paris acting as agents for the sale of radium. All the French houses sell radium on the "purity" content and evade the word element. One could be deceived in this manner unless the matter was well gone over. With the English language and an interpreter in French, one gets but little satisfaction, but I have never found any deception with the French.

Dr. Joseph Riviere's medical establishment is located at 25 rue des Mathurins. The doctor has used radium for more than ten years, but he has never used it extensively because he devotes his attention to all the lines

of electrotherapeutics. His establishment is conceded to be the most extensive in the world. He is the parent of what is known as fulguration treatment for cancer, and he used the method three years before Keating Heart studied medical electricity.

Laborde and Muguet, noted chemists, are producing more radium in Paris than any other concern. They are located on the Seine at Quai du Chatelier, Ile Saint Denis. I saw in one building at this place what was said to be 1,500 tons of carnotite ore from Colorado. The ore was in sacks, many of which were broken and part of the contents scattered about. These chemists sell radium at a price much greater than our American concern. Their price is, for instance, \$80 a milligram for pure radium bromide. Radium bromide hydrated has only 53.5 per cent metallic radium, or radium element, in it. Then, one purchasing "pure radium bromide" is buying in any quantity 46.5 per cent barium bromide and 53.5 radium element. This makes the cost for radium element about \$150 a milligram. This establishment will not sell less than twenty milligrams. Some of the selling institutions of the city get \$90 a milligram for any salt of radium but maintain a ratio of radium element, and they charge for receptacles and containers.

At 12 Rue Cuvier is the laboratory of Mme. Curie. She does not teach, does not produce radium, and does not sell radium, nor did she or her husband ever at any time sell radium. Some persons have said that they bought radium from the Curies or their agents. They never had an agent.

Mme. Curie is now devoting her time to the supervision of academics. She has about her a number of the most eminent chemists and physicists of France, and they are instructors. Students matriculate here for a course in the science of radioactivity.

In Mme. Curie's laboratory at the above number is the sealed glass tube of radium which has been adopted as the International Radium Standard. This standard was agreed on by a committee appointed by the Congress

of Radiology and Electrology which met in Brussels in 1910. The tube contains 21.99 milligrams of pure anhydrous radium chlorid prepared by Mme. Curie, and contains 16.75 milligrams of radium element. The price for standardizing any quantity of radium less than 100 milligrams is 200 francs.

Jacques Danne is editor of *Le Radium*, but the publication is too academic for any one but physicists.

The Pasteur Institute is one of the most interesting places in Paris. Professor Metchnikoff was out of the city, but Professor Paul Salmon, first assistant, was present, who showed the work of the institution. I saw a great number of artificially produced cancers, which were grown in pigs, mice and monkeys. In the case of sarcomas the tumors are readily cured with radium.

Very little English, or none, is spoken in the scientific centers of Paris. I secured the service of Mme. Reuss, 72 Avenue de La Grand Arme. She is English by birth and education, but her father was German and her mother Italian. She has lived in Paris fifteen years, speaks beautiful French, and "knows the town." Any one traveling in France or Paris will fare better by employing this woman than any of the interpreters offered by agencies. She is a distant relative of Dr. A. Le Roy Reuss, of Belleville, Illinois.

#### FREIBURG

"Die Anwendung des Skopolamin—Morphium—Daemerschlafes in der Geburtshilfe." This is the title of an article by Dr. C. J. Gauss in 1906. Eight years after this article was published the public press "caught on" to the phrase "Twilight Sleep," as applied to this caption or titled article. This practice was simply an incident among many innovations which Professor Kronig and his assistant, Dr. Gauss, have, in a casual manner, used in this great institution. There is nothing remarkable in this practice, not even the technique, and there is nothing remarkable claimed by these superior teachers. In fact, they are wholly negative to both those who applaud and those who disclaim.

The work they are doing with radium, radium-mesothorium, and the x-rays is, probably, not equalled anywhere else when all phases of the practice are considered. Mesothorium has no advantage over radium, except a larger quantity was obtainable at the time its activity was first announced by Sir William Ramsey and Professor Frederick Soddy. The preparations of mesothorium are gauged to about the same activity as radium, but its half life is only five years. The method of treatment is massive dosage, both by direct and cross-firing. The x-rays are used continuously for hours, but only small divisions of the part under treatment are subjected to the rays at a time. The rays are the direct rays—the most intense rays—from the anode, and are screened. Patients are taken for treatment with a promise on their part to remain one year. The treatment is continued for months after all symptoms of the disease have disappeared. Dr. Kronig has entirely given up surgical operations for the treatment of uterine cancers.

Dr. Kronig and his assistants are fraternal and obliging to visiting physicians. The nurses and help have a manner that show good treatment. The institution and surroundings are clean and inviting. The city itself is clean and located on a picturesque site at the foot of the mountains. The people are happy and prosperous. All these conditions contribute to the comfort, satisfaction, and willingness to remain a long time for treatment, and it is this long-time treatment that insures permanent cures. At the time these observations were made, July 9th, the people had no suspicion of an approaching war, but the soldier element had intimations and were elated over the prospects of war.

#### VIENNA

This is the home of Freund, the most extensive writer and the first author on the therapy of x-rays; the city where there is more radium than anywhere else; the city where the most clinical material is gathered under the authority of Government for the benefit of students; the city of the poorest paid doctors and hardest worked



teachers, but this is not the city in which to get enthusiasm over x-rays or radium. All radiant therapeutics is minimized, fearing its influence may over-shadow surgical departments. The great rush here is for some department of surgery, and it is naturally held as dominating, and nothing shall be permitted to lessen this incentive. I saw Professor Holtznecht, who could not say "yes" in English, but through an interpreter "thanked" me for calling. He has no clinic. He has a small class to which he teaches physics of the rays. I saw good x-ray work done in several very small, cramped quarters. The gruesome sight of these dark and narrow unfinished walls, together with broken English spoken in monotone, gave one "weird seizures." Five women, practically nude, in leisured succession took the opaque meal and stood before the screen. The half-dozen students present quizzed one another in an undertone. I saw Professor Freund in his hour of teaching. He seemed glad for the diversion and said he remembered me. He spoke fair English—if one will give him time. He made a diagram on a board showing the method of using eight x-ray tubes at the same time for the purpose of cross-firing a tumor.

I worked my way into a large ward where I was told radium was used. To the side of this ward was a small space partitioned with thin curtains. Some indistinguishable voices were heard coming from this space, and, as I entered, a man approached to whom I asked, "Do you speak English?" He immediately replied, "I don't speak anything else. I came here with a letter from a professor of one of the surgical departments and gave it to one of these fellows and after he read it he gave it to the other fellow, but neither of them have spoken to me. They don't look friendly, and it is my impression I am trespassing." We watched them do a little radium work and I was satisfied such work was not on exhibition.

I was at 33 Porzellangasse, where Mr. Willibald Foltz, K.k. Montanverkaufsamt, is director. I have had letters from him relative to the purchase of radium and,



since the Government of Austria does not sell radium to persons from other countries, it was a concession to let me have it. Mr. Foltz left on a hunting trip the day I arrived—probably hunting for Servians, and I had to rely on a house full of clerks, who could not speak one word of English. I was looked at with inquisitive eyes—the war scare was on.

From the observations made in this "Round of Radium" it will be seen that radium is used by operators according to each individual notion. There is no such thing as concerted action. In any manner in which radium is applied the tissues respond. The great question is quantity, but a great deal can be done with a small amount. In this plight one must narrow his treatment to small and recent sores. As one obtains more radium, blessings to the human race increase, and it is not a wild vision to predict an early day when cancer will be the rarest of death diseases.

Dr. Robert A. Kelly, in speaking of radium and cancer, says: "It is practically the only cure." He further adds: "In the older cases, surgery is helpless, because of the deep invasion and diffusion of the growth; but radium will attack cancer and halt most of those cases without blemish, without sacrificing the tissues."

Every surgeon knows—and I mean a surgeon—that he is powerless to prevent recurrence of cancer and to prevent metastasis, and therapeutic science has done no better. As Dr. Kelly says, quoting Dr. Abbe, "the cancer cell is an anarchistic cell, which goes ahead independently without any control, and multiplies itself at the expense of the organism without contributing its work to the organism—the most wonderful picture of anarchy that was ever created." What does radium do to this cell? Dr. Degrais answers this question: "The reaction following the selective method, we discover, at the end of a few days, that cellular disorganization leading up to cytolysis (cellular softening) has taken place, having passed beforehand, generally, through a phase of hypertrophy. The connective tissue enveloping and

supporting the mass of cancer cells is regenerated by the invasion of embryonic nuclei, which dissociates the groups of cancerous cells, finally replacing them. These modifications tend to a fibrous transformation of the tumor, in the course of which the cellular necrosis is probably eliminated by phagocytosis." This is the course of epitheliomatous cancerous tissues. Modifications produced in other forms of malignant growths are very similar.

Drs. Irwin, Starkel, Portuondo and Renner, of Belleville, Dr. Lane of Edgemont and Dr. Herold of Mascoutah, have observed this cellular softening in an enormous lymphosarcoma of the neck—which is a recurrent tumor after second surgery—in the case of a patient at present in the St. Vincent Hospital at Belleville, Illinois. It is in this hospital that all my radium work is conducted.

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# ON THE PROPOSITIONS OF THE ASSOCIATION OF SUPERINTENDENTS OF AMERICAN HOSPITALS FOR THE INSANE.

BY JOHN CURWEN, M. D.,

One Time Superintendent and Physician of the Pennsylvania  
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## PRELIMINARY NOTE BY THE EDITOR

Now that psychiatry is beginning to attract, from the general profession, the practical consideration it has so long deserved and to accomplish which, this magazine was founded and has so long striven to promote, we deem it appropriate that we should bring again to the attention of the medical men of the country these valuable suggestions concerning the care and treatment of the insane in our psychopathic hospitals, made more than a third of a century ago, by eminent men in American psychiatry and ratified by that eminently practical and clinically experienced body of physicians who, following the Esquirolian injunction of living with the insane, to better understand them, the superintendents of American hospitals for the insane adopted and promulgated these propositions.

This association is now the American Medico-Psychological Association of which Dr. John Curwen, the writer and the eminent Dr. Isaac Ray were mainly the distinguished and ever to be remembered authors.

**T**HE Association of Medical Superintendents of American Institutions for the Insane was established in 1844, with the object of advancing, in every practicable manner, the best interests of the insane, and the members are "the medical superintendents of the various incorporated, or other legally constituted institutions for the insane now existing on this continent, or which may be commenced prior to the next meeting, and all those who have, heretofore, been medical superintendents and members of this Association, or who may be hereafter appointed to those stations." It is the oldest medical organization, of a national character, on this continent.

This Association has, at different times, adopted propositions on the construction and organization of hospitals

for the insane, and on all matters bearing on the welfare of the insane, which have received the most unqualified approval of those best capable of judging in Great Britain, and they have also been received with high praise in France.

These propositions, when presented as the report of a committee appointed to draw them up, have always been most rigidly and carefully examined and discussed, and after such examination and discussion of every important word in every sentence, they have been unanimously adopted, not, as some would say and have said, because they were proposed by the more prominent members, and the others did not care to discuss them, but because they received the cordial endorsement of every member from the fact that they fully and clearly expressed the sentiments of each member, and "may be regarded as the well established results of very varied, extensive and long continued observation in nearly every section of the country and among all classes of patients." The first series of propositions on the construction of hospitals for the insane was adopted in 1851, and so well and so carefully were they matured that in only one of that number has any change been made, and to that change attention will be given at a subsequent time. The second series was adopted in 1853, and relates to the organization of hospitals for the insane. To these propositions special attention and consideration will be given in this and subsequent articles, so as to explain them and enforce the reasons which led to their adoption, to convince those who will carefully consider the points presented that "the crude theories and the visionary suggestions which are frequently met with" need the sure foundation of experience and practical observation which **can** most certainly and unquestionably be found in these propositions.

It may be stated, also, as a cardinal principle, from which no deviation has yet been made that the Association has always held its meetings in some town or city where a hospital for the insane was located, so that the

members may have an opportunity of examining the peculiarities of arrangement and management in detail, characteristic of the institutions in different sections of the country, and be thus enabled to profit by what has been done by others engaged in the "noble cause."

I.—"Every hospital for the insane should be in the country, not within less than two miles of a large town, and easily accessible at all seasons."

Every one will admit that the inmates of a hospital should be placed in the most favorable circumstances for the promotion of their welfare, and that their surroundings should be, as far as possible, free from every source of annoyance, or whatever might tend to produce unpleasant impressions, and these can best be attained in the country, away from the bustle and confusion of a town and the close proximity of those careless, idle, vicious and thoughtless people, sometimes found in towns, whose conduct, conversation, general character and habits would certainly not have a very beneficial influence on persons of disordered minds, filled with all sorts of vagaries and distempered fancies, but would rather tend to increase and strengthen such irregular action.

There is, unfortunately, in certain classes, a morbid inclination to ridicule the peculiarities of manner, conduct and conversation of the insane, and to worry and irritate them in a variety of ways, and that would most surely be done by the idle and thoughtless; and a very prejudicial effect would thus be produced on the insane, should any hospital be placed so near a town as to enable such persons easily to visit it, or to meet the patients when they were walking for exercise and recreation. It may be said that the arrangements of a hospital should be such as to prevent such classes having access in any way to the patients, but while that is very true in theory, it is often found very difficult to regulate in practice, from the known disposition of many to attempt to do that which is forbidden to idlers, simply because it is forbidden; and the experience of every one familiar with the management of a hospital teaches the extreme

care which must be constantly exercised, even when a hospital is situated at some distance from a town, to prevent the communication of improper persons with the patients. Such persons seek opportunities to convey to the patients articles they should not have, and with which they may do injury to themselves or to others, and also to tell them what will irritate and excite or otherwise injure them.

But in a pleasant position in the country, an extensive landscape, with a variety of natural scenery of hill, cultivated fields, wood and water, and sufficient of the outward moving world in view, but not in close contact, to give animation to the scene, a greater degree of fresh air can be obtained, greater opportunities for exercise, unmolested, can be enjoyed, with extensive and beautifully ornamented grounds immediately adjoining the buildings, to attract and divert the attention at all times, and, also, a good farm and garden.

Accessibility at all seasons is very necessary, not only for the convenience of those who are required to bring patients to the institution, but for those whose business requires them to visit the hospital at regular periods, and for the easy procuring of those supplies of every kind which enter so largely into the daily consumption in such institutions; and in these days when railroads are so ramified into every section of the country, it is not very difficult to obtain, near the center of population and of railroad facilities, such a location as will answer nearly, if not quite, all the requirements of the proposition.

This seems the proper place to consider a proposition adopted in 1866, referring to this subject of the proper location of a hospital.

"The large states should be divided into geographical districts, of such size that a hospital situated at, or near, the center of the district will be practically accessible to all the people living within its boundaries, and available for their benefit in cases of mental disorder."

From a carefully prepared statement, made after a thorough examination of all the reports of the different



hospitals in this country, by Dr. Edward Jarvis, of Dorchester, Massachusetts (the able statistician and pioneer in all matters of the kind, on the subject of insanity, in this country), it would seem to be established as a fact, not admitting of any doubt or dispute, that the majority of all the patients in any given hospital for the insane, come from the section of country most contiguous to the institution, the facilities of travel being always considered. If a hospital for the insane be located as near as may be, having regard to the facilities of communication between different parts of the district, in the center of the population, great expense will be saved in the conveyance to and removal from the hospital of those who may require its accommodations, and this item of traveling expense is a very serious one in the majority of cases; then again the risk to the individual from the fatigue, the excitement and annoyances attending a journey of any length in a weak and depressed, or in a violently excited condition, is often very great and attended with considerable danger to life.

The friends and relatives of the patients in any hospital for the insane often, very naturally, desire to visit them and examine into their condition, more particularly when the case has assumed the chronic form, and the expenses of a long journey often press heavily on their means, especially where the support of the person in the hospital has to be defrayed, in whole or in part, from the amount they derive from their daily labor. The same reasoning will also apply to the authorities of the townships or counties who are necessarily required to look after the welfare of those entrusted to their charge.

Every hospital should also be located in the center of population in the district, because the most thickly settled sections are those wherein the largest number of insane will be found; and in those parts, also, will be more readily found those who will be relied on for the various occupations and employments in such institutions; and there, also, can be had, more economically, all those supplies of different kinds which are required in the domestic

economy of the institution, and the communications between different sections by railroad, will also, in all probability, be more complete and satisfactory.

II.—“No hospital for the insane, however limited its capacity, should have less than fifty acres of land, devoted to gardens and pleasure grounds for its patients; at least one hundred acres should be possessed by every state hospital, or other institution, for two hundred patients, to which number these propositions apply unless otherwise mentioned.”

The reasons for requiring a given amount of land in connection with every hospital for the insane, may be briefly stated to be the necessity for extensive grounds for exercise and recreation immediately adjoining the building, a large garden for the supply and cultivation of all the vegetables required in an institution of the kind, so that they shall be fresh and in abundant quantity at all times; and in a State hospital, a large farm so that a large stock of cows may be kept for the supply of fresh milk. These necessarily require that a large amount of hay, grain and vegetables be provided for their use as well as for the other stock which may be required to enable the operations to be carried on with proper economy, and for the stock cattle which many institutions, which kill their own beef, find it necessary and advantageous to feed.

In the cultivation of the farm and garden an opportunity will be given for the employment of a number of the patients for whom such occupation is required, that they may have some regular occupation to divert their minds and improve their bodily health, and prevent their sinking into a dull lethargic condition, or wasting the energies which should be given to active exercise in mischievous destructiveness of various kinds.

Into this question of labor by the insane it is not intended here to enter, as it requires a more extended consideration, which may be given at another time, but only to indicate the fact that every hospital should be

fully provided with all the means necessary for carrying into effect any such system of labor.

III.—“Means should be provided to raise ten thousand gallons of water, daily, to reservoirs that will supply the highest parts of the building.”

Where practicable, it is always safest and best to have the reservoirs on an elevation near the building, or within convenient distance, but where that cannot be done the tanks should be made of boiler iron, placed in the building above all the occupied portions, so as readily to supply every apartment with water, and so arranged that any leakage from breaking or disorder of pipes or valves, or the condensation on the tanks, may be conveyed away and prevent injury to the ceilings or other parts of the building.

An abundance of fresh pure water is an absolute requisite in every hospital, and the utmost care and attention is demanded to secure such a supply as will prove constant at all seasons, and as little subject as possible to variations dependent on the rainfall in any sections.

The experience of the last few years has abundantly demonstrated that it is not safe to rely entirely on springs, however inexhaustable they may have been considered, but recourse should be had to a large stream or river, so that, while the fresh supply may be had from one part of the stream, the sewerage of the institution may be carried into the same stream at a point far below that from which the fresh supply is drawn.

No subject, connected with the location of a hospital, has, apparently, received so little consideration as the supply of water and the disposal of the sewerage, and no subject is attended with greater sources of annoyance and vexation to the management, and risk to the health and lives of the inmates.

No good can be attained by reference to special instances where these matters have been overlooked in the original selection of a location, but it will be admitted by all, familiar with the subject, that very serious annoy-

ances have been suffered, and large expenditures of money have been required to remedy defects which could very easily have been avoided by more care, attention and forethought in the original selection. Unfortunately the evil is not confined to the selection of sites for hospitals for the insane, but will be found in a very large number of buildings intended for the accommodation of different classes and conditions, both healthy and diseased.

IV.—“No hospital for the insane should be built without the plan having been first submitted to some physician or physicians who have had charge of a similar establishment, or are practically acquainted with all the details of their arrangements, and received his or their full approbation.”

The principle involved in this proposition is founded on the general experience of mankind, that those who have given most time, thought and attention to any given matter are best qualified to give advice on that matter; or that when any work requires special skill and mechanical or professional knowledge, the persons best calculated to do or direct that particular work most satisfactorily, will be those who have had largest and longest experience in that particular branch. But we are told by official authority that it is not worth while to take advice from persons familiar with the details of the construction and arrangement of hospitals for the insane, because their minds will be biased by personal interest and convenience.

Do those who seriously put forth such a declaration consider the force and extent of their own declaration which would clearly debar them from giving advice in any case falling under their care because their personal interest in that case would surely bias their judgment? It will be claimed, and must be admitted, that where this proposition has been set aside and institutions built without such counsel and advice, the result has proved the wisdom of those who insisted on the adoption of this proposition.

In the very nature of things it must be so, and mankind will always continue to act on this principle in all important matters, in defiance of every plausible pretext

to make them believe the contrary. No man, nor any set of men, would build a factory, an iron furnace or any building for any special purpose, without fully and carefully consulting with those who were most familiar with the special character of the work to be done in that building; nor would any set of men think of erecting a hospital for the ordinary sick without first examining the plan and arrangements of the best institutions of the kind to be found, and obtaining in the construction of the plans and buildings the advice of those most familiar with that class of buildings.

As a hospital for the insane is different from an ordinary hospital in the greater part of its arrangements, designed for the treatment of a special class of diseases and therefore requiring special adaptations for special purposes in the different portions of the institution, it is but reasonable to insist that those who have been most familiar by long residence and observation in such institutions, and understanding more fully what will be most essentially necessary to secure, in the most effective manner, the objects of the institutions, are best qualified to give advice in the preparation of the plans and to superintend the erection of such buildings.

Experience has proved, and will continue to prove to the end of time, that where the plans have been prepared and the buildings erected under the supervision of those most familiar with the details of construction of hospitals for the insane, the buildings have been not only better constructed and arranged for the purposes of their erection and the money has been expended more judiciously and economically, and with a higher regard to the interests of those by whom and for whom the hospital has been built, than where the contrary plan has been adopted.

The statement has been made, time and again, that the superintendents are responsible for the lavish outlay which, it has been claimed, has been made in many hospitals for the insane in this country. That some superintendents may have erred in this direction may not be denied, because they are subject to errors like other



men, and may be biased in favor of particular plans and persuaded to their adoption by a desire to conciliate those with whom they may be associated, or for whom they may be acting. But in this, as in many other things, they have been made to bear the blame of what strictly belonged to others who overruled them.

It will be found, on careful inquiry and examination, that the architect employed has been desirous of making an elevation which would reflect special credit on his taste and ability to prepare such plans, and that the commissioners for building have been biased in their judgment by the persuasion of the architect and of the community in which the institution has been located, and have consented, in order to gratify the desire of the people of that section, for a building which should be an ornament to their locality, to the erection of more costly and more showy buildings, requiring a greater degree of ornamentation, and, consequently, a greater expenditure of money, for really unnecessary matters, than they had intended.

The Association, aware of this tendency, gave expression to their views in the following very decided terms: "That these institutions, especially if provided at the public cost, should always be of a plain but substantial character; and, while characterized by good taste and furnished with everything essential to the health and comfort and successful treatment of the patients; all extravagant embellishments and every unnecessary expenditure should be avoided."

The true principle is clearly expressed in this proposition, that the building should be in accordance with good taste, and a chaste and correct taste rejects excessive embellishment, and, therefore, all undue and, consequently, unnecessary ornamentation should be avoided, and special care and thought should be given to make the interior of the building, which is to be occupied by the patients, in the highest degree homelike and comfortable, and adorned with everything which can tend to give pleasure to the



eye, diversion to the mind and a feeling of general contentment and satisfaction to the individual.

Everything in and around the institution should minister to the grand object for which the hospital was built—the relief and restoration of those placed in its care—and no amount of money judiciously and thoughtfully expended for such purposes can ever be regarded as excessive or misplaced.

In addition to this it should always be borne in mind that, in all buildings erected at the public expense, the money is drawn from the people by taxation, and they have a clear and undoubted right to insist that that money shall be carefully and economically spent only for the purposes for which it was appropriated, and not to gratify the vanity or contribute to the advantage of any particular individuals; and when a full equivalent is rendered for the amount appropriated, it will be found that those for whom it was spent will be satisfied with the expenditure.

V.—“The highest number that can, with propriety, be treated in one building is two hundred and fifty, while two hundred is a preferable maximum.”

It is believed that no one will call in question the truth embodied in this proposition, that the best results for the insane themselves—and their interests alone are those which claim paramount importance in this discussion—are to be obtained by an adherence to the principle, that a small number can best receive that care and attention which will most surely promote their restoration, for the very plain reason that the physician will be able, more carefully, to study out their special ideas and peculiarities, and the bodily conditions which may have influence in the production and the continuance of the disorder, and thus be more fully qualified to direct the varied means which may be most influential in the promotion of the object sought to be attained. It is admitted that many men claim that they can give as full attention to a much larger number as they really require; but, without any intention of disparaging their great ability and attainments, we

make free to say that they do not do it by personal attention and regular visitation each day.

Motives of expediency, however, led to the adoption in 1866, of the following proposition, which received a majority vote, just at the close of the sessions of that year:

"The enlargement of a city, county or state institution for the insane which, in the extent and character of the district in which it is situated, is conveniently accessible to all the people of such district, may be properly carried, as required, to the extent of accommodating six hundred patients, embracing the usual proportion of curable and incurable insane in a particular community."

The reasons urged for this change were, that legislative bodies could never be brought to the point of agreeing to the erection of so large a number of hospitals as would be required by the terms of the original resolution, and that some concessions must be made to their views in order to obtain the needed accommodations for the insane.

Many persons consider that in large institutions, with the number at its maximum, the majority of the patients must necessarily be of a class requiring little medical treatment, and that the care of these can be transferred to the assistant physicians, and that the superintendent should only be required to give his special attention to that class of recent cases requiring special medical care.

We hold it to be the bounden duty of every superintendent to make such a careful daily visit to all those committed to his charge, that he shall be familiar with their mental and physical condition, and his practiced eye will enable him to judge what changes, if any, may have taken place in each individual; and he will be able to recognize traits and symptoms which those less familiar with the insane would overlook. Not only justice to the insane themselves, but to those by whom they were placed in the institution, demand that such special personal care be given, not to insist on the obligation which rests on every medical man to devote the best energies of his mind to the care of those for whom, by the very terms of his appointment, he is made special guardian and

protector. Such a duty cannot be ignored, and should not be delegated, but performed under a full sense of all the responsibility involved.

The duties of the superintendent in this regard are thus expressed in another proposition: "He should have the entire control of the medical, moral and dietetic treatment of the patients; the unreserved power of appointment and discharge of all persons engaged in their care; and should exercise a general supervision and direction of every department of the institution."

To the full scope of this proposition many well-meaning persons object, and insist that the duties of the superintendent should be confined simply and exclusively to the medical department, and that the business arrangements should be conducted by a steward or other officer who should have control in all that class of matters. In urging such a plan, these well-intentioned people overlook some very important considerations.

No institution can be successfully managed by two persons. There must be one authority to which all others must be obedient, so that all parts shall work in harmony and aim steadily and unvaryingly at the production of the production of the best results.

This practice of divided authority was tried in the early history of the country, when the management of the institutions was patterned after the English hospitals; but it has been gradually abandoned, and even in Great Britain, it has been steadily changing, year by year, so as to conform to the plan of having one responsible head, to which all others shall be amenable.

While such a principle might, under peculiar circumstances, be made to answer without extraordinary friction, in a general hospital, there are peculiarities about a hospital for the insane which render it absolutely essential to the proper administration of all its parts, that one leading, governing mind should direct the whole intricate mechanism.

No man, who can lay claim to any correct knowledge of the treatment of the insane in these days, will pretend

to say that the medical means are those on which alone or principally, he relies for success in the efforts made to restore those committed to his charge, or to give the greatest degree of mental health and comfort to those who may not be looked upon as likely to reach that point. It is admirably expressed in the proposition quoted as the medical, moral and dietetic treatment. It must be admitted that, as all mental disorders are dependent on, or caused by, disordered action of the organ through which the manifestations of mind are made known to us; and as those disordered conditions may arise from diseased or disordered action of different organs of the body, acting directly or sympathetically on the brain and nervous system, medical means must be resorted to calculated to remove all diseased conditions and restore the disordered functions to their normal, healthy action—and very often that will include the greater part of the treatment required.

But as the larger part of the disorders are often traceable to defective nutrition in some of its many forms, the necessity is imperative that the proper food should be administered in conjunction with the medical means, so as to bring up the system to a more vigorous and healthy condition, and thus place it in the most advantageous position to throw off and resist all unnatural states.

To have these two modes of treatment work together, satisfactorily and efficiently, it will be granted, by all reasonable men, that they should be entirely controlled by the superintendent and physician who alone is capable of judging what is best calculated for the benefit of his patients, and to direct what kind and character of food is best suited to the different cases which come under his care, and for whose treatment he alone is held responsible.

But, in addition to these, there are in the mind certain desires, affections, passions and emotions which require to be acted upon by repression or stimulation, or in that way which will be most conducive to the ultimate welfare and relief of the patient; and in the moral treatment are

included all those appliances which may, in every practicable manner, be made subservient to that end.

These appliances include all those means of diversion, recreation and exercise of mind and body which may assist in changing the current of thought from an unnatural to a natural channel, and develop more healthy action of the different organs of the body.

Among these will be found working in the garden, on the farm or any other form of manual labor to which men have been accustomed, and which may be most suitable for the individual in the condition he may be at the time, and whatever form of outdoor or indoor game, or amusement, or occupation can be made most available.

For women, all the infinite diversity of occupation, from the lightest form of fancy work in all its varying grades, to more active duty in the various departments of household employment; and for both classes, music, lectures, exhibitions of the magic lantern with the almost endless combination of views and scenery and objects of interest, of every kind, which may now be had; together with whatever may be found most conducive to the object to be attained, and most in conformity with the habits, inclinations, tastes and education of the different classes for which the institution was designed.

It must be clear to every thinking man that, in order to the proper execution of all these different forms of treatment, they must all be directed by one mind, which can best know by a careful study of, and attention to, the peculiar character of each individual, just what will be best adapted to that particular case. It will be as readily seen that where these different modes may be left to be executed by two different men, there will be the strongest likelihood of a difference of opinion as to the proper manner in which the plans should be carried out, and an equally strong probability that no successful plan will be put in full operation.

Experience teaches that this is no mere fancy sketch or picture of the imagination, but has had in the past,



and has now in the actual present, its living reality in more than one institution.

But it is asserted by the advocates of this theory, that where a medical man's mind is occupied with the oversight of the garden and the farm, he cannot give proper attention to his medical duties. Do those who make this assertion consider that it is as necessary for the healthy action of every medical man's mind that he should have a diversity of mental occupation, as that he should have proper nourishing food to support his bodily strength? Is it not a fact, supported by the amplest evidence, that every man who confines thoughts and attention to one thing constantly, becomes, thereby, a man of only one idea, while men who have a variety of duties to perform, mingle in the world of thought and action, and, by contact with different classes of men, see the variety of ways in which things are done, and hear the wonderful diversity of views which men entertain and the peculiar modes of thought and expression which prevail, become, thereby, more enlarged in their ideas, have a more comprehensive grasp and are better able to understand the varying changes of thought and feeling which they may meet in those entrusted to their charge, and, therefore, much better qualified to deal with the almost endless variety of disordered mental action which may come before them to be properly directed and led along into more healthy channels?

Besides, every man needs a certain amount of physical exercise, and if he cannot obtain it by looking after the farm and garden, and various other out-door matters, he will be compelled to take it in some other form which may draw him away more effectually from his duties at the hospital.

Then, also, it must be remembered that, by the very nature of his position, the superintendent of a hospital for the insane is, in great measure, debarred from many of those social enjoyments and recreations which other medical men can enjoy; and that, in place of being tied down to an unvarying routine of duties—such as these



gentlemen would so kindly prescribe for him—he is entitled to lead that kind of life which best accords with his own ideas of duty to the hospital, to society and to his own family; to enjoy liberty in the way he may feel most conducive to his health and to the welfare of those committed to his charge, and to engage in the pursuit of happiness in all those modes which may, while fulfilling strictly and conscientiously the duties of his position, enable him to realize most fully that

“Not enjoyment, and not sorrow,  
Is our destined end or way;  
But to act that each tomorrow,  
Find us farther than today.”

(CONTINUED IN NEXT NUMBER.)

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## INSANITY OF ADOLESCENCE

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IN this paper I shall disregard the borderline and hysterical cases encountered during adolescence and shall confine my consideration to the group that are commonly termed dementia praecox. We may say that the clinical symptoms in these cases are fairly constant and if sufficient time were taken in the clinic little difficulty is encountered in diagnosing. Further than this, those who have had considerable experience declare that upon close observation and without an attempt to analyze the symptoms they are able to "feel" that the patient is suffering from dementia praecox. Unscientific as these deductions may be the assertion emphasizes the fact that certain manifestations characterize this type of mental alienation. Whether or not we perceive the shut-in personality of Hock, the auto-erotism of Fraud, the dream state of Janet or Kraepplings auto-toxic theory, we recognize the introspective personality, the paranoid with his inability to adapt himself in connected effort, leading to definite ends. The katatonic resisting all natural influences, repelling all normal suggestions, vigorously opposing all interference, his muscular tension, mutism, automatism, stereotype and verbigeration.

Bayard Holmes in an article on dementia praecox states that 30,000 of the youths of our country fall a prey to this dread malady annually. He proceeds to criticize the methods employed in state institutions in handling this type. He describes the practice as one of expectancy, and of waiting; giving an exceedingly gloomy

prognosis in the average case of dementia praecox committed to a state hospital. While his figures are right in the main, he is not fair in his deductions, he should admit that cases of dementia praecox are committed to the hospitals only after efforts along medical lines have been exhausted by local physicians and the relatives have grown weary of the worry and care. The patient advanced to a profound dementia entered the hospital as a last resort and was regarded from the outset as a hopeless case, it is true in many instances little was done to accomplish relief. If a katatonie, he was allowed to remain in solitude, to revel in the indulgences of his ego, receiving or rejecting food, retaining the excretions of the body and in every way lowering his resistive power.

If a hebephrenie or a paranoid, he was given a routine hospital work without systematic training and the chief feature of his treatment was custodial care.

It is fairly well established in dementia praecox, that we are dealing with degenerative disease affecting the association fibers and it is not impossible that re-education, discipline, removal of toxic conditions will regenerate at least to some extent the disturbed association tracts or establish new tracts. Recognizing this as the pathology of the condition, the method of procedure in these cases is somewhat simplified.

World wide attention has been directed recently to the work of Abderhalden concerning protective ferments encountered in the blood in pregnancy, also in cancer and in various other pathological conditions. Although it is somewhat early to compile reliable statistics upon the Abderhalden test with reference to dementia praecox, the reaction obtained from sex gland and cortex substrates is in harmony with the theory of a toxic basis emanating from the sex glands. This laboratory confirmation coupled with the fact that the disease develops at that period in life when these glands are becoming active strongly favors the deductions that there exists a toxic basis in some cases referable to the sex glands. Simon, in this country, states that "sex gland reactions may be

obtained in nearly all cases of dementia praecox in some stage of the disease, but the reaction is not specific of dementia praecox. He found no sex gland reaction in paretic syphilis but he did observe a positive reaction with sex gland substrates in four out of twenty-five cases of manic depressive, two out of ten cases of involutional depressive and two out of four cases of constitutional psychopathic states and two out of two cases examined of toxic psychoses of nephritic origin, and four out of five alcoholic cases. However, Simon like all other investigators, gives a most substantial support to the Abderhalden theory in itself and emphasizes the conclusion that in dementia praecox a positive reaction is the rule and in the purely functional psychoses it is the exception. All of which supports the theory of Abderhalden that with the substrates of the respective sex glands the testes for the male serum, the ovary for the female serum, fairly constant contributing laboratory evidence may be secured. So we see the pendulum swinging back to the theory of toxic basis. We may soon know and be able to demonstrate the ferments which are active in this condition.

Already remedies for dementia praecox in the form of nucleins which appear to produce an artificial leukocytosis are extensively employed. It has been long noted that improvement attended certain praecox cases suffering from typhoid fever or purulent processes. The relief has been attributed by many to the fixation of biological constituents which exists in the blood of the patient. Granting, however, the possibility of placing receptors in the blood to combine with toxins, the question arises what can be done to influence the pathological processes which produce the toxins, or in other words, the fountain from which the toxins arise; what is to be said of the degenerated brain substance which continues to pour out its product, thus rendering necessary an indefinite continuation of the treatment. In a matter of so great importance it is well to temper our enthusiasms with a judgment based upon critical analysis, the doctrine

of protective ferments strikes a sympathetic cord coming as it does in the wake of the recent revelation in the study of the blood in syphilis. We may agree that the rational procedure in the treatment is to remove the cause of the degeneration, to re-establish the association tracts, but since this involves the question of inheritance, of pre-disposition of determiners from our ancestors we find ourselves engulfed in a tumultuous sea of faulty social conditions which we cannot hope to correct during the present generation. Reluctantly we are placed in the position of beginning at the wrong end to build, using the materials that are the products of successive generations of faulty living.

Halvar Lundvall of Lund, Sweden, has produced a remedy for dementia praecox consisting largely of nuclein with some arsenic and sodium cinnamate prepared for deep injection and designed to produce a leukocytosis. Lundvall makes rather startling claims for improvement in seemingly hopeless cases of dementia praecox but the time from the development of this procedure is too short to predict end results. Its employment appeals to us as the most rational, and in view of the physical improvement attending practically all cases treated by this method its employment is to be commended.

I wish to report a small series of twelve cases treated by Lundvall's solution, the first injection given on August 7, 1914. A few of the cases are still under treatment. I am reporting these cases as they occurred for whatever value the deduction made may have:

Case 1—Katatonic type, mental difficulty developing in 1906, was committed to the hospital in 1907, her dementia becoming more profound from year to year, was given the initial dose of 10 cc. Lundvall's solution August 10, at which time her leukocyte count was 7200, has been given five injections in all, temperature reaction of two to three degrees with a leukocyte count ranging from 13,000 to 16,000. No appreciable results in physical condition and no change mentally.

Case 2—Katatonic, committed to this hospital in 1908, three years after the beginning of her attack. She has deteriorated mentally throughout the period of her commitment, was given the initial dose August 10, at which time her leukocyte count was 10,000, and four subsequent doses were administered; temperature reaction ranging to 102 with a leukocyte count ranging from 22,000 to 23,000. Patient has lost in weight under treatment and has shown no improvement mentally.

Case 3—Dementia praecox, hebephrenic type, age 21, committed to this hospital in 1912, was given initial dose on August 10, at which time her count was 6400. She received five injections in all; temperature reaction ranged from 102 to 103 and her leukocyte count was from 22,000 to 24,000. There has been slight improvement mentally and more marked physical improvement, is less troublesome and will initiate slight tasks about the ward.

Case 4—Katatonic, received in April of 1914. with a history of having had mild mental symptoms for the past twelve years; age 27, family history of two uncles and two aunts insane, also a great uncle suffering from mental trouble. Initial dose given August 10, at which time leukocyte count was 6000; four doses administered in all, temperature reaction 103, leukocyte count 18,000 to 24,000. There is slight improvement mentally and physically. Patient was paroled in October, but was returned within a few days with the history of having become excited and difficult to control.

Case 5—Katatonic type, admitted to the hospital in 1913, having shown symptoms of mental difficulty two years before commitment; age 19, this patient has a gangrenous appendix removed in May of 1914; the abdominal wound drained six weeks and the patient became very much emaciated physically; she became mentally more and more demented and so resistive that she required to be tube fed for several weeks. The initial dose was given on August 10, at which time her leukocyte count was 11,000; five injections were given with a temperature reaction of 102 to 102.5; leukocyte



count ranged from 20,000 to 27,000; under treatment patient has gained 18 pounds. There is marked mental improvement and we are contemplating paroling the patient. She is performing light tasks upon the ward and manifests an interest in needle work.

Case 6—Katatonic dementia; 28 years of age, first symptoms developed three months before commitment; committed in May of 1914; has a negative family history; was so resistive and required tube feeding up to the time that the treatment was inaugurated. Her initial injection was given August 10, at which time the leukocyte count was 9,000; five injections were given in all. Temperature reaction ranged from  $103\frac{1}{2}$  to 104. Leukocyte reaction ranged from 19,000 to 28,600; there is marked physical improvement, including a decided gain in weight; patient is eating in the general dining room and is now learning basketry in the art room; we are contemplating her parole.

Case 7—Paranoid type, 25 years of age, admitted to the hospital in 1901, again in 1903 and in 1906, discharged in 1907 and recommitted in 1908. The initial dose was given August 10; initial count 6500; five injections given; temperature reaction 103, with leukocyte count ranging from 12,000 to 34,000; there is no improvement mentally and the patient's mental symptoms are somewhat intensified, she being more irritable.

Case 8—Katatonic type, committed to the hospital in 1912, a few months after the development of mental symptoms; the first injection given August 10, at which time initial count was 6400; five injections were given, temperature reactions ranged from 103 to  $103\frac{1}{2}$ ; leukocyte reactions ranged from 18,000 to 19,000. There is no improvement physically, patient has lost in weight and does not eat as well as before treatment.

Case 9—Katatonic form, committed to the hospital in 1908, first symptoms begun three years before commitment; negative family history, initial count 6000; five injections given beginning August 10; temperature reaction from 102 to 103; leukocyte count ranging from

19,000 to 21,000. Patient shows no change mentally, but is improved physically, has to be fed by persuasion and is very resistive. The father of this patient visited the hospital this week and insisted that he could note improvement in the mental status of this case. However, we are not inclined to regard the case as one in which we have received decided results.

Case 10—Is a Katatonic form, committed to the hospital in 1906, symptoms developed two years previous; has one brother who is an epileptic; case has been stationary during the period of his commitment with a gradually increasing dementia. Initial count 8,000; five injections given in all; temperature reactions 101 to 103; leukocyte count ranged from 27,000 to 28,000; no change noted physically or mentally.

Case 11—Katatonic type, patient committed to the hospital in 1893, released in 1896, and returned in 1897; negative family history; initial dose given August 10, at which time leukocyte count was 12,000; four injections given in all; reaction counts ranged from 14,000 to 17,000; temperature reactions from 101 to 102; there is no improvement in mental condition, but there is a marked physical improvement.

Case 12—Paranoid type, admitted to the hospital in 1893, and released in 1896, and returned in 1897; negative family history; initial count 8000; five injections given; temperature reactions 102 to 103; leukocyte count ranged about 23,000; no change in mental condition, but patient has gained twelve pounds in weight.

To summarize; twelve cases were included in the series, eight are katatonic, two are hebephrenic and two are paranoid. Temperature and leukocyte reactions were about equal in all cases. Cases were selected without reference to the length of time elapsing since their mental overthrow. No change was noted either physically or mentally in two of the cases treated; there was physical improvement with no change mentally in three of the cases; there was slight improvement mentally and physically in two of the cases; there was marked improvement

mentally and physically in two cases; three of the cases treated have shown increased mental symptoms and physical deterioration in spite of the treatment. Of the cases showing improvement all were cases having been received within the past eighteen months. Of the cases showing no improvement and continuing to deteriorate one was received within the past two years, the other two have been committed to the hospital for the past five years. I would not say that this result is any different from the result obtainable in a similar series by the intelligent use of hydrotherapy, the electric light bath, the cold sitz, the salt glow, the Scotch douche and various technique employed in water treatment, any one of which increases the leukocyte count, especially the electric light bath which ranks next to the sun bath in producing leukocytosis.

In the treatment of this form of mental alienation whether it be by Lundvall's solution or hydrotherapy we must not lose sight of the value of re-education as supplementary to medical aid. If we regard this condition as one of progressive deterioration, we cannot fail to recognize the importance of development of the voluntary attentive control. Sully regards our power to facilitate an idea proportionate to our ability to inhibit other contesting ideas. If the threshold of consciousness is so low as to permit the uninterrupted entrance of various stimuli, there exists a confusion of suggestions resulting in a conflict of ideas. "Wundt" defines the "lumen of intensity as equivalent to the threshold of consciousness," that is, we perceive only that which rises above the level, this inhibiting action of all stimuli, save those attended, he has associated with the frontal lobes, the so-called apperceptive centers. "Exner;" compares "inhibition with reflex action" or the inhibiting of reflex responses by higher centers.

No matter what theory we accept as the psychology of the attentive control its development is secured in but one way and this much the same as development of any organ by graduated, systematic persistent effort.

Occupational pursuits beginning with the most elementary effort and persisting until higher and more complex acts are performed is in a word the process by which the individual is clutched from the yawning abyss over which he is hovering. Appropriate treatment instituted early in the case followed by re-educational efforts in the development of the voluntary attentive control will save a variable percentage of our otherwise hopeless cases.

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## SELECTIONS

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### NEURODIAGNOSIS

DR. IRA RUSSELL'S VIEWS OF THE DRINK HABIT, writing for the *Alienist and Neurologist*, Volume 2, Number 1, in 1881, on the Psychological Aspects of Alcoholism, made these distinctions:

"The occasional inebriate is one who, through social enjoyment or excitement on some holiday, becomes intoxicated, due perhaps to the solicitations of jovial companions; such an event is followed by mental depression, a sense of shame and feelings of disgrace.

"The habitual inebriate is one who makes constant use of stimulants, is not often fully intoxicated but thoroughly saturated with liquor. The influence upon the mind of such a course of life may not, at first view, be very apparent, but upon a closer investigation, it will be found that there is a general deterioration of all the mental faculties.

"The confirmed inebriate is one who, uninfluenced by moral considerations and caring not for the disgrace and loss of character that follows intoxication, becomes drunken whenever an opportunity occurs. In such a person, the sense of moral obligation is blunted; the lowest and most brutal passions are unrestrained, and the love of home, wife and children is destroyed. We have among the insane a class called insane criminals, so it is with the inebriate—there is a class of criminal inebriates, and they are found mostly among the confirmed drunkards.

"The dipsomaniac is one who goes on sprees occasionally, craving for alcoholic stimulants, occurring par-

oxysmally, with a constant liability to periodical exacerbation. During the intervals of sobriety he has no desire for stimulants, and will associate with those who are drinking without partaking, and then, without any apparent cause, will go on a debauch lasting from a few days to several weeks until he becomes completely exhausted, and with a paroxysm of remorse and repentance abstains for a season."

At the time he wrote he records that:

"Dr. Bucknill denied the disease theory, while Dr. Clouton and others equally well informed maintained it. But he saw no reason why the psychical condition which results in dipsomania, may not be as truly mental as that which results in dishonesty, theft and cruelty. No fact is better established than that the vice of intemperance, like other vices, and peculiar manifestations are due, in many instances, to hereditary transmission."

THE TRAUMATIC NEUROSIS—"Of this misnomer the cause is shown to be purely psychic, derived from a false notion of the patient which induces depressing emotions which disturb both the bodily health and life relation. A clear illustration of the mechanism is that of the 'conditioning' of the gastric reflex of dogs by psychological stimuli whether these are pleasurable or painful. The removal of the extraneous suggestion would remedy the neurosis but for the fact that memory maintains its actions. So that the mental content must be modified at its foundation, and this requires considerable analysis of the patient's trends. Hence the complete failure of such naive procedures as reassurance and suggestion.

"Law suits and malingering, so often inter-woven with these cases, have created misunderstandings. But indemnity is not necessarily curative even of the malingerer. A case which lasted seven years after receiving heavy damages is reported.

"In the complicated case, proper psychological reconstruction, made possible by clear analysis, inevitably



cures, as the mechanism of neurotic disturbances after accidents differs in no way from that we find when there has been no accident at all. Furthermore its nature is not of a complexity beyond the understanding of a layman: so that its principles can readily be grasped when presented in court by a expert witness who really understands them."—Tom A. Williams in *A. Jour. Med. Science*, Oct.

We do not concur in the statement that traumatic neurosis is a misnomer. Psychic symptoms are often morbid sequences of trauma. Fright and fear of serious consequences and the resulting paraesthesias, are to be taken into consideration as results of violence and mental shock, as much as the consequences of cerebral concussion from cranial injury and shakeup without fracture or dislocation or solution of continuity.

Great harm has been done to victims of railway accident, suffering from cerebro-spinal concussion, by surgeons insisting upon tangible structural lesion before admission of possible hurt to the cerebro-spinal and peripheral neural mechanism. There are many possible injuries to the neuraxis beyond tangible perception, ultimately in grave consequences, including such serious conditions as epilepsy, delirium, insanity and paresis.

DIABETES, E. FRANK.—This article from Minkowski's clinic, *Deutsche Medizinische Wochenschrift*, presents for consideration a new theory of the nature of diabetes.

The organs which regulate carbohydrate metabolism are the nervous system and the pancreas. The latter is the only organ, partial or total extirpation of which will always cause glycosuria of varying degrees. Experimentally, Claude Bernard has shown that trauma to the nervous system may cause glycosuria, and clinically, diabetes often follows nervous strain. The glycosurias produced by adrenalin are regarded by the author as a special instance of the Langlay-Elliot law, which states that all organs supplied by the sympathetic react to adrenalin as to irritation of the sympathetic

system. The thyroid and hypophysis he regards as of secondary importance in diabetes, producing their effect probably through their action on the sympathetic.

Frank believes that diabetes is to be regarded as a disturbance of glycogen metabolism, due to the effect on the liver of derangement of pancreatic function. In support of this theory he cites the fact that anastomosis of the pancreatic vein of a normal dog to the portal system of a depancreatized dog will cause a marked diminution in the glycosuria in the latter. It is probable, he believes, that in diabetes the lack of pancreatic hormone so disturbs the glycogen metabolism that the normal chemical phenomena can no longer occur, with resultant glycosuria and acidosis.—Excerpt by C. H. L. for Boston M. & S. Journal.

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## NEUROTHERAPY

MAGNESIUM SULPHATE IN THE TREATMENT OF TETANUS, H. Berger, in Berlin Klin. Woch.—Excerpt by R. M. H. for Boston M. & S. Jour.

“Meltzer and Auer in 1905 first studied carefully the physiological effects of magnesium sulphate; and its anesthetic action, following subcutaneous, intradural and intravenous administration has led to its use in tetanus. It has no specific effect on the toxin, but prevents the convulsions to a great extent. All three of the above methods of injection have been used, with gratifying results. Kocher reports six cures in seven cases. Meltzer and Auer have used a 25% solution. Kocher says that this is too strong, and that 15% is better—or even 10%. The difficult point to decide is the dose—the author says the maximum dose of the 15% solution should be 2 c.c. to 10 kilograms of body weight. Intradural injection is very effective, but must be used with great care and the patient watched constantly, so that artificial

respiration and stimulation may be begun at once in the event of paralysis of the respiratory centers. This method of treatment should not supplant the tetanus antitoxin, but the two may with care be used together. The question of repeated doses depends upon the extent and severity of each individual case. Auer says that "cases of tetanus in the hospital should always have this magnesium treatment."

PROLONGED ADMINISTRATION OF EXTRACTS of the pituitary gland exerts a distinct pressor effect upon the peripheral vascular apparatus, which continues an appreciable time after the discontinuation of the drug. This is apparently the only persistent effect, the others being variable and indefinite.—Muser, *Amer. Jour. of the Med. Sci.*

PERIL OF TWILIGHT ANESTHESIA—Clinical as well as experimental evidence tends to show that twilight sleep produced by chloroform is dangerous, and this will probably be found to apply to other agents used for the same purpose. Many deaths have been observed during the first stage of chloroform anesthesia under the influence of fright or excitement. These emotions enhance markedly the production of the adrenal principle, and the excess of this agent gives rise to cardiac fibrillation followed by death. These effects of epinephrine have been demonstrated by Cannon, Hoskins, Depree and Levy.—*New York Med. Jour.*

NEW YORK NEUROLOGICAL SOCIETY, Dec. 2, had the following interesting case under discussion: "An Unusual Brain Neoplasm."

Dr. Louis Casamajor: A negress, aged 14, was admitted, March 7, 1911, with the history of failing sight and hearing, and partial inability to use the right arm and leg. Her symptoms dated back several months and were growing progressively worse. The patient's family history was negative. With the exception of measles in infancy, the child had always been in good health until August,

1910, when she began to complain of headaches, and became cross-eyed. Glasses were prescribed and her symptoms disappeared within six weeks.

In November, 1910, it was noticed that the child slept more than usual and complained of occasional headaches. A month later there was some loss of function in the right arm; the fingers were stiff and numb, and within a fortnight she began to complain of weakness of the right knee and stiffness of the leg. Subsequently, her sight and hearing became impaired and grew progressively worse. Physical examination showed a dull, undersized negress, with a well-marked right hemiplegia, with increased reflexes on this side but no Babinski. An examination of the eyes showed papilledema of about 3 or 4 diopters on each side, with beginning atrophy. Vision was 20/70, right and left. The visual fields were normal, the Wassermann test was negative, as was also the urine.

Operation was performed, March 11, 1911, by Dr. Charles A. Elsberg. A right subtemporal decompression showed that the intracranial pressure was markedly increased. The operation was followed by a hernia cerebri, which grew to the size of a croquet-ball, and the patient's condition became progressively worse. She gradually became totally blind, and could hear only very loud sounds. Her right hemiplegia progressed, and by June, 1911, she was practically bedridden, blind and deaf. In September, the mother, who objected to the large hernia cerebri chiefly on cosmetic grounds, began bandaging the head tightly. With this, the patient immediately began to improve. The hernia became smaller and the child much brighter. The sight and hearing gradually returned, but the hemiplegia remained about the same, and at present the girl is able to see as well as before the operation, although the optic discs look very much atrophied. There is no deafness of any account. The hemiplegia is evident, the right arm being more affected than the leg. She walks with a slight right limp, while the right hand is contracted and useless. The decompression

opening is soft, and there are no evidences of any increased intracranial pressure.

Dr. B. Sachs related that he had seen a case in which operation had been performed to relieve symptoms of intracranial pressure similar to those shown in the case shown by Dr. Casamajor, which were attributed to the presence of a neoplasm. When the skull was trephined and the dura incised, a vascular tumor of enormous size presented itself. On account of the patient's condition, no attempt was made to remove the growth. The patient recovered from all her symptoms, except that there was no improvement in the double optic atrophy, which had existed prior to the operation.

Dr. I. Abrahamson said there was possibly a cyst near the ventricle, which, aided by the pressure applied, may have emptied into the ventricle; or else a localized posterior basic serous meningitis, with retention of fluid in the larger cisterns; here the increased pressure from without was the means of reestablishment of the circulation of the cerebrospinal fluid.

Dr. Foster Kennedy said: In spite of the good results in this case I do not think that pressure on these hernial protrusions can be regarded as a safe therapeutic measure.

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## CLINICAL PSYCHIATRY

THE PREVENTION OF INSANITY—A generation ago to acknowledge the existence of tuberculosis in the family was to cast reflections upon the origin of the family. Heredity was regarded as the main factor in the spread of consumption. During the past ten years, there has been a noticeable change in the attitude of the public towards the existence of cancer as well as tuberculosis. The tendency to ascertain the existence of the disease during an early stage is being encouraged through the organization of large societies for the dissemination of



information regarding the earliest symptoms of carcinoma. There is still, however, a hushed admission of a diagnosis of cancer or tumor, as though it were a reflection upon the morality or integrity of the sufferer's family.

The above attitude is still too largely exemplified in the position assumed of insanity. The ancient tradition of demonic possession succumbs slowly to the force of popular knowledge. Our terminology has changed and we no longer speak of lunatics nor do we have lunatic asylums. Even the more generous word insane asylum has given place to the more rational expression, hospital for the insane. More intelligent communities have eliminated the word insane and utilized the term psychopathic hospital or state hospital, the purpose of which is thoroughly understood.

While statistics indicate that there has been a great increase in the number of mentally incapacitated, it has not been demonstrated that there has been a relative increase in mental disease in the community. Under wise leadership, better hospital facilities have been provided so that patients and relatives are more willing to permit commitment. Under improved hygienic methods of treatment patients suffering from mental diseases live longer than during previous decades. As a result of diagnostic advancement, diagnoses are assured in earlier stages of the disease, so that at the present time, the number of patients suffering from mental diseases or defects, appears to be far greater than during previous years. Insanity is no longer a disgrace to be concealed, but is recognized as a disease to be attacked with the same rational procedures as any other disease coming upon the masses.

A long step in advance will be taken when the public in general recognize that insanities are of various origins and that possibly one-third to one-half of them may be regarded as curable. The humanizing of treatment of the insane, the disuse of shackles, padded cells, restraining bands and manacles, the introduction of recreation, amusement, occupation and encouragement have trans-



formed the patient from the status of a wild beast to that of a suffering human being. The mystery of insanity is slowly being penetrated. The illusions, hallucinations and delusions are not being regarded as evidence of a brutal humor, but are being investigated with reference to their relation to previous mental experience.

The industrial, economic and social losses which may be attributed to the incidence of temporary or permanent insanities, are difficult to calculate. Their monetary valuation falls short of their real cost in the light of their full significance as related to the development of the society of today or the hosts of the future. The most valuable step that can be taken in fighting mental diseases is a recognition of the underlying factors of a preventable nature that may be attacked through individual or conscious group effort. To sum up briefly the causes of insanity is difficult but this is suggested in the *University of Colorado Bulletin*, volume XIII, number II.

1. Heredity is a large factor in unstable mental make-up, although it cannot be said that insanity is itself really hereditary.

2. Alcoholism and syphilitic infection are definitely responsible for about one-third of all cases.

3. Bodily disorders, sometimes seemingly only trivial, but often of long standing, occur in the history of a great many patients.

4. Mental peculiarities, showing themselves long before the insane condition is reached, frequently are known.

5. In a considerable number of cases no previous indication of approaching disease is seen and at present no satisfactory explanation of these cases can be made.

In any scheme for attacking the problems for insanity, every effort must be made to combat alcoholism and syphilis. These represent the problems of the ages, the pursuit of pleasures, and the worship of Bacchus and Venus. The campaign necessary to make inroads upon the results of these historical and traditional diseases will exist during the life of man. No single short sharp battle will suffice. The marshaling of forces will

go on slowly, the army of enlightenment will slowly advance, and when the battle has been won, there will be no field of carnage, and no wasted ways to show the march of progress. Public education and suitable legislation in response to advance public sentiment will mark the milestones of advance.

The limitation of infectious diseases through sanitary measures and municipal or state hygiene will tend to decrease the insanities associated with or due to infectious diseases. Herein one notes again the necessity for education, for the development of civic pride, and for the subordination of the privileges of the individual in favor of the rights of the community.

In order to develop the proper emotional states in individuals, a sane system of popular education must be established which will develop the nervous system without encouraging nervousness; which will retard neuropathy and encourage self-control, self-restraint and normal contentment. Despite the obstacles which heredity may present, there is abundant reason to believe that the ability to adjust one's self to environment is an essential factor and power in decreasing the likelihood of mental disease.

At every stage in the consideration of methods of prevention of insanity, we meet the word education and training. The recognition of the value of physical education, mental education, emotional training and will development, represents a valuable point of attack, practical in nature, demonstrable in power and available for immediate use. From the standpoint of medicine, the educational point of view expresses itself in the teaching of mental hygiene and mental therapeutics in the organization of psychopathic clinics and psychopathic wards in general hospitals where special hospitals are not available.

The training of internes and nurses and attendants, the development of lecturers on mental hygiene, the study of psychological states as related to mental disease, the clinical researches into the etiology of disease with mental

symptoms whose causes are still unknown, and finally the appreciation of the fact that the public must be taught that insanity in all its protean forms is only a disease, suggests the educational policies which await the attention and direction of the medical profession.

In connection with the foregoing, there is always the general hygienic advice necessary for normal human beings which reaches back to the foundations of preventive medicine. The basis of the prevention of insanity is found in the principle that the chief work of the future for physicians, is to maintain the public health, preserve its mental equilibrium and safeguard unborn generations through the preservation of the physical, mental, and moral health of the community. This is the large therapeutics—not the cure of the patients, but the elimination of the diseases which claim their countless victims.—  
Editorial in Medical Review of Reviews.

THE FIXATION OF POISONS BY THE CENTRAL NERVOUS SYSTEM is the subject of an excellent editorial pertinent to the purposes of this Magazine from the potent pen of our excellent contemporary, Dr. Thomas L. Stedman, editor of the Medical Record, which we take pleasure in placing before our readers.

"The subject of the selective affinity between certain poisons and the central nervous system is one that presents many points of interest, with respect not only to general pathology but also to the pathology of the nervous system. A number of observers have pointed out that in various types of intoxication the nervous system contains an amount of toxin greater than any other part of the body. Ogier and Skolosuboff demonstrated the presence of arsenic in the brain in cases of slow intoxication by this drug and the presence of a large amount of hydrocyanic acid in the brain and spinal cord in cases of rapid poisoning by this substance. Similar observations have been made with respect to lead and the anesthetics.

"This subject has been approached from the viewpoint of the microbic poisons, particularly those produced by the diphtheria bacillus, in a series of investigations performed by George Guillain and Guy Laroche. The results of their studies were first reported five years ago when they described the fixation of the diphtheria toxin by nerve tissue. A comprehensive survey of this subject is presented by these investigators in *Le Progres Medical*, July 11, 1914. In their original work they had shown that the medulla oblongata of patients who have died in the course of severe diphtheritic paralysis contains toxic substances that are not present in the case of individuals dying from other affections. The toxicity of the above substance was determined by the fact that emulsions of the medulla oblongata in physiological salt solution when injected into guinea pigs caused the death of these animals. There is a direct path of the diphtheria toxin from the pharynx by way of the nerves to the spinal bulb. The affinity between the diphtheria toxin and the nerves is a particularly close one. Thus these investigators in collaboration with Grigaut showed that if diphtheria toxin is brought into contact with nerve tissue the toxic properties imparted to the latter cannot be removed even after repeated washing with physiological salt solution. It was found that the phosphorized lipoids of the phosphatid group (lecithin, cephalin) have an intense fixing power with respect to this toxin, while the nonphosphorized lipoids, such as cholesterin, are entirely inactive in this respect. Diphtheria toxin when combined with nerve tissue undergoes a marked activation of its toxic properties, the period of inoculation of the experimental disease and the duration of the latter being considerably shortened.

"The toxin of tetanus is likewise fixed by the nerve tissues, but is contrasted with the diphtheria toxin in one respect, namely, the nerve tissue of an animal or human being that has succumbed to tetanus, if inoculated into a laboratory animal, will not evoke the disease unless the amount of tetanus toxin present exceeds the amount

that has been neutralized by the nerve tissue. Another distinguishing characteristic is the fact that the phosphorized and non-phosphorized lipoids, with the exception of protagon, possess but slight fixing power with respect to this toxin, while the albuminoids are strongly fixative. The clinical differences between diphtheria and tetanus are probably to be explained on the basis of the above differences: the diphtheria toxin which causes paralysis is fixed and activated by the phosphorized lipoids, while the tetanus toxin which evokes muscle spasm is partly fixed and neutralized by the protein substances.

"The poisons of the tubercle bacillus are fixed and activated by the nerve tissues. Tuberculin when mixed with nerve tissue has its power increased as much as fourfold. This fact may serve to explain some of the phenomena of tuberculous meningitis. The adult or the child affected with the latter dies before a local defense has been set up. Frequently at autopsy on cases of tuberculous meningitis there are observed but few local lesions; there may be only a congestion of the meninges. The rapidity and intensity with which the convulsive and paralytic symptoms of tuberculous meningitis develop are to be attributed to the avidity with which the poisons of the tubercle bacillus combine with the nerve tissue, particularly in the regions of the medulla and the basal ganglia. It has been shown that in the nerve centers the tubercle bacilli are quickly destroyed. This bacteriolysis which is a mode of defence nevertheless sets free toxins which become more potent by being combined with the cells that are responsible for their liberation.

"This subject is one of engrossing interest and eminent clinical importance, and many of its ramifications can only be hinted at. One may allude to the selective affinity of strychnine for the cells of the anterior horns of gray matter of the spinal cord, to the fixation of alcohol by the brain, to the avidity with which chloroform and ether combine with nerve tissue, and to the predominance of lead in the same tissue in cases of plumbism. Oxalic acid is likewise seized by the nerve tissue to a greater extent than by any



other part of the body. The symptoms of anaphylaxis are to be attributed largely to the fact that the anaphylatoxins expend their virulence upon the nerve cells with which they combine.

"Important from many view points of internal medicine is the hypothesis that endogenous poisons may behave in the same manner as those mentioned above. Nervous symptoms such as paralysis, tremor, convulsions, contractures, delirium, etc., are probably the result of a fixation of toxic bodies by the nerve centers. This is a conception of fundamental significance in phychiatry and deserves extended investigation."—From *Medical Record*, Aug. 31, 1914.

The varying tenure of different poisons on the central and peripheral nervous system and the prompt or dilatory action of others, as the slowness of lead and the cyanides, is another extremely interesting subject which we should be pleased to see the doctor present in a subsequent number.

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## NEUROSURGERY

AN INSTRUCTIVE VAGUS RESECTION ERROR.—Under the heading "Instructive Mistakes" in the *British Journal of Surgery* for October, 1913, appears an article entitled "Tumor of the Left Vagus Removed in Mistake for a Fibroma, with Fatal Result." A girl, five years of age, had enlarged glands at the left angle of the jaw for one year. For the last two months the swelling had been increasing, the child was not well, and it was noticed that when asleep respiration was difficult. The swelling was firm, extended forward into the carotid triangle, and the separate glands could not be differentiated. At operation some enlarged lymphatic glands were removed, and these were found to rest upon the surface of a large, somewhat lobulated tumor, extending upward



to the base of the skull, and deeply to the wall of the pharynx. "Freeing of the deep connections proving difficult, the tumor, which was assumed to be a fibroma springing from the base of the skull, was bisected, the lower half, which was already cleared, was removed, and the upper half was snipped away from the skull with scissors. The whole tumor was  $3\frac{1}{2}$  inches in vertical length, and 2 inches in width." No immediate difficulty was experienced either as to pulse or respiration. The next morning the child was apathetic, seemed disinclined to speak, the voice was changed and deeper in tone; pulse, 160, small; respirations, 28. During the next two days she remained apathetic, was drowsy, and it was hard to get her to take nourishment. Moist sounds were heard throughout both lungs, and on the fifth day the base of the left lung was airless. The pulse at this time was 130 and frequently intermittent; respirations, 40; temperature,  $102^{\circ}$ . The child gradually failed and died on the thirteenth day after operation. Autopsy showed general septic bronchopneumonia in both lungs. The vagus was found to have been divided, a part of the tumor remaining attached to the lower portion. The author states that "No immediate symptoms accompanied the division of the vagus, but it seems clear that it was responsible for the symptoms which developed subsequently and led to the death of the child." This case report emphasizes the validity of the conclusions in the editorial resume of the subject in these columns last week.—*Med. Rec.*

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## NEUROANATOMY

ENDOGENOUS FIBERS OF SPINAL CORD—F. E. Batten and Gordon Holmes (*Brain*, Vol. 35, Part IV.)

The authors conclude from the examination of acute poliomyelitis that the spinal portion of the spinal accessory

nerve has a large intramedullary root which extends throughout the upper five or six cervical segments of the spinal cord. (2) The longer descending systems of the dorsal columns—Schultze's comma tract, Hoche's marginal bundle, Flechsig's oval field, and Gombault and Phillipe's triangle—do not contain endogenous fibers in man. (3) The propriospinal fibers of the ventrolateral columns are arranged in man as in other mammals, and conform in their arrangement to the law that the longer fibers lie nearer the surface of the cord. (4) Many fibers in the ventrolateral columns ascend to the brain stem and terminate in the inferior olives, in the formatio reticularis bulbae et pontis, in the nucleus centralis inferior, and probably in the nuclei laterales of the medullae; others ascend in the dorsal longitudinal bundles as high as the mid brain.—Smith Ely Jelliffe excerpt for the Post Graduate.

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## CLINICAL PSYCHIATRY

ALCOHOL AND DELIRIUM TREMENS.—This paper gives the results of an investigation directed to determining the presence of alcohol in the body-fluids of patients suffering from delirium tremens. M. Demole has examined the urine, blood, and cerebro-spinal fluid in twenty-three cases of chronic alcoholism, in ten of which delirium tremens developed while the patients were under observation. The author employed the qualitative reaction of Lieben, and the quantitative method of Nicloux. His conclusions are as follows:

(1) At the onset of delirium tremens, alcohol is found in the urine, blood, cerebro-spinal fluid, saliva and breath of the patients, if they have absorbed sufficient of it during the preceding twenty-four hours.

(2) The elimination of alcohol takes place within twenty-four hours, just as occurs with normal healthy

persons. The delirium continues its evolution after the complete elimination of the drug.

(3) Delirium tremens develops, in many cases, when there is no trace of alcohol in the organism. The disease is therefore independent of the recent consumption of alcohol.

(4) There is no ground for the treatment of the condition by the method of gradual reduction of the alcoholic intake.

M. Demole suggests that the detection of alcohol in the breath and body fluids may be a valuable aid to diagnosis in some doubtful cases, especially in medico-legal practice, and he describes a simple apparatus for the clinical use of the bichromate reduction method for this purpose.—W. C. Sullivan's excerpt, *Jour. Ment. Science*.

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## EDITORIAL.

HANS SCHMIDT the Priest, convicted murderer of Anna Uum Aumueller, afterwards dissecting her and throwing her remains in the Hudson River, may have been an insane necrophile. The proven horrible deed seems otherwise incredible in a sane Priest of the Catholic church. There are such among insantly perverted erotopaths who are not religious.

It might give the court of justice concerned some light on the true inwardness of this otherwise diabolical crime, if Schmidt were confined for a time before his execution, to a penitentiary insane asylum and allowed access to the dead room where recent female corpses are placed and secretly observed, to learn if he should attempt to ravish female corpses.

If he is thus insane he should be permitted to live out his life and die in the male department of an asylum for the insane. If not insane the electric chair would be almost too good for his heinous crime.

LUST AND RELIGION NOT NECESSARILY RELATED.—That lust is the basis of religion because they sometimes pathologically coexist or sometimes alternate is neither a logical nor physiological conclusion. The Celibate Roman Catholic Clergy and the celibate orders generally refute this. Platonic love and parental love also refute it. It is as logical because sexual and religious erotism coexist in the same person that animal lust is the offspring of religion as to assert the contrary.

They are no more intimately related than crime or criminal propensity and virtue which coexist in all human creatures.

Like the genito-urinary and defecator centers located near each other the spinal morbid condition may effect these centers in the spinal cord separately and combined but religious conviction in one with a paretic bladder or rectum does not make the genito-rectal disorder the cause of the religious state. Though a full bladder may cut short a sermon it is not likely to inspire one. Nor will overful seminal vessicles or congested ovaries turn the heart to prayer.

DURING OUR VACATION—BOSTON—During our summer vacation we took in Boston and its environments on our way and learned more of this grand city and surroundings than heretofore.

We notice they have put a canopy of protecting masonry over old Plymouth Rock, a granite boulder which had remained unharmed since the Pilgrims first sighted it nearly three hundred years ago, without any roof over it and may be since creation's dawn for aught we know, or at least since floating icebergs over the deluged earth may have transported it from the frozen arctics and dropped it there. The New England sea coast is

called the summer vacation play-ground of America. The crescentic bay front of Boston with its innumerable bathing beaches certainly is delightful recreation ground for the brain weary. No wonder the Heaven bound Pilgrim to the shores of eternity, when asked at Heaven's gate how he liked the heavenly prospect sighed and said—very nice but it isn't Boston.

Boston, as the world knows, is noted for taking care of its early history and of the memory its Pilgrims and patriots and statesmen.

The historical side of Boston is well exploited as it should be by a patriotic people. Even the cranky conduct of the early day Salem Witchcraft insanity are imperishably recorded in bronze on the side of a house in that once peculiar town but in Boston the number of straight haired, bronze faced and pallid colored citizens is like a certain drummer's progeny who said there was none to speak of.

ON WASHINGTON STREET near the corner of Lynde, in Boston, on the front of a frame building, an electric lighting company and a moving picture show on either side and above the three story frame front, with brick side and rear walls of the Old Colonial House, now occupied as a small hotel, is the following metallic plate inscription:

"Nearly opposite this space there stood in the middle of the street, a building devoted from 1677 until 1718 to municipal and judicial uses.

"In it, in 1692, were tried and condemned for witchcraft, most of the nineteen persons who suffered death upon the gallows.

"Giles Grover was there put to trial on the same charge, and, refusing to plead was taken away and pressed to death.

"In January, 1695, twenty-one persons were tried here for witchcraft, of whom eight were acquitted and three condemned, but later set free together with 150



accused persons, in general delivery, which occurred in May."

This so-called witchcraft has later been called "Malicious Magnetism and Criminal Hypnotism, Legally Undue Influence, etc."

THE COLLEGE OF MEDICINE OF THE UNIVERSITY OF ILLINOIS.—The Legislature of Illinois, we are gratified to note, has made an appropriation to the University for the equipment and operation of its medical school. This puts this school abreast of modern advance in medical education. We acknowledge a personal invitation to visit this college and inspect the buildings, equipment and work of the institution. The profession generally are so invited. The Faculty ask to have the benefit of any suggestion as to possible improvements which may occur as a result of such inspection. This is the right spirit toward the profession.

ERRATUM (Literary).—On page 278, August number, 1914, tenth line read:

As Alexander Smith has put into the mouth of Walter who, referring to the fallen Virgin et seq.

NEEDLESS NOISE AND NEURASTHENIA.—American Medicine called renewed attention to this subject and Sajous, in his *Cyclopedia and Medical Bulletin* for September, repeats the subject in its excellent pages among its "News and therapeutic notes." Edmund Perrier, Director of the Paris Museum of Natural History, gives special instances of noises that cause neurasthenia though American Medicine does not concur entirely in Perrier's conclusion but nevertheless thinks "the anti-noise crusade is a worthy one," as this Magazine has repeatedly maintained.

One of the worst noises is the flat wheel and screeching, jumping street car and the illy approximated rail ends thereof which is continually driving residents away from the city streets through which the cars run, to the quiet suburbs.

RECREATION FOR INSANE HOSPITAL PATIENTS.—The New Jersey State Hospital report for 1913, at Morris Plains, quotes the following:

"The American Medico-Psychological Association appointed a committee last year to investigate the status of diversional occupation as a mode of treatment. This committee summarized its investigation in the following statements:

1. "That diversional occupation of the insane used and recognized by over 60 per cent. of the institutions in this country is a most valuable means of treatment.

2. "That occupation and recreation are of value in all forms of mental disorders, but are especially of value in the class of patients usually called the 'unwilling workers.'

3. "That diversional occupation is a therapeutic agent to be prescribed after a careful study of each case, and should be in charge of a competent director—either a doctor or nurse.

4. "That without diversional occupation the lives of the patients fall into a dull and monotonous routine, and many cases become hospitalized that might otherwise be restored to the community.

5. "That diversional occupation, systematically and scientifically applied, marks the standing of a hospital and that if neglected or omitted the patients are not receiving the most care and treatment to which they are entitled."

To which Dr. D. B. Evans, the accomplished superintendent, appropriately adds the following:

"The employment of patients should be guided by three fundamental principles:

"The primary object should be therapeutic, based on individual and scientific consideration of the peculiar ailment and deficiencies of each patient. It is of great importance that we cultivate in curable patients an adaptability which will enable them to again take up the struggle of self-support.

"The second object of this method of treatment is the economic advantage to the hospital. Patients should be so engaged that the products of their labor will be a contribution to the reduction of cost of their maintenance.

"The third principle calls for a scientific observation of the progress made in each individual patient so that residual energies may be properly utilized without possible detriment to their improvement. The data thus obtained may be used to standardize ergotherapy, and thereby make possible the more general and methodical adoption of these measures of care and treatment."

This is one of the best of the psychotherapeutic features of our hospitals for the insane and should be extended to all hospital chronic patients "able to do something." The help given by certain patients in the sewing rooms, dining rooms and in the care of their own beds and sleeping rooms may, when judiciously prescribed and adapted to particular patients, prove salutary and helping to bring back impaired mental and physical vigor.

THE EUROPEAN WAR.—Aside from the appalling death toll among the combatants, bereft, grief stricken families, waste of resources, business damage and general impoverishment consequent upon the present exhausting, shocking, un-Christian, European War, is the set back given to science and the arts of peace.

All of the nations engaged in the mutual wholesale murder were the world's best contributors to Science. Their chief contributions now are to the "Grim Reaper," the cemeteries, the shrouds, the undertakers, the trappings and habilliments of woe and the makers thereof in the manufacture of death dealing engines of war.

It is a sad reproach to our boasted "Christian Civilization" that Christ and His creed of compassion and brotherly love should be buried in reciprocally destructive hatred of nations that should now be engaged rather in the pursuits of peace and good will as the Divine Father of their creeds enjoined from above the clouds of earth.

THE SIAMESE TWINS.—The Siamese twins, Chang and Eng, were born in Bangasseau, Siam, April 15, 1811, and died near Mt. Airy, N. C., Jan. 17, 1874. Their father was Chinese and their mother Chino-Siamese. They were bought from their mother and brought to America by Robert Hunter in 1829. They were exhibited here and later in England and Europe for several years.

They returned to America and established themselves on a farm in the South, marrying two sisters. Chang had six children and Eng five. Two of the offspring were deaf and dumb; the others were normal. Having met with reverses in fortunes, they again exhibited themselves here and abroad. In 1870 Chang had a paralytic stroke. He died first, in America, Jan. 17, 1874, and within two hours Eng's death followed.

We place the above brief account from the "Boston Traveller" of 8-2-14, for ready reference record and would like to hear from any reader his opinion as to the probable pathology of Eng, whose death followed so soon.—(Ed.)

REPORTS OF HOSPITALS FOR THE INSANE (Psychopathic Hospitals and Sanitaria) come to us from every state and city.

Though we have not space to make individual note of all as they come we appreciate the good work most of these "monuments to the medical profession" are doing and the up-to-date philanthropy these reports reveal in their enlightened, cheerful and humane provision for the insane.

It was a physician who first broke the chains of these unfortunates and removed them from dark dungeon cells and neglect to lightened hospitable hospital rooms and hope and medical care.

We should be glad to have very brief epitomes of these reports sent us and especially gratified to see physicians generally and the general public better informed concerning the present management and treatment of the insane. Also some physicians who, without correct

knowledge of them though posing as experts, disseminate detrimental views of their treatment.

Nevertheless we are gratified to see a more enlightened public opinion prevailing regarding these worthy institutions and less adverse prejudice. We have heard during the past year but little of the old time suspicious investigations instigated, as they often were, by discharged unworthy employes, disgruntled, disappointed, ambitious or aspiring legislators wanting the superintendent's job.

CLINICALLY EXPERT AND NON-EXPERT ALIENIST OPINION.—It is easy for a fertile mind, knowing the peculiarities of morbid mental action and proclivity to abberant mental display, to misapply morbid propensity of speech and conduct to wrongly inspired impulses of the sane but ungoverned, or evilly balanced mind, in the display of its ruling passion.

There are amateur alienists and clinically untrained reasoners who reach a conclusion sanely of criminality in regard to viciously motived mental action, calling the crime insanity, but the All Seeing Eye saw the difference as Cain himself discerned it, in his calmer moments of remorseful reflection, when conscience threw the light of truth on rapacity and brotherly love triumphed over the hateful jealous lust of gain and under the true light of what some would call returning sanity this biblical fratricide executed himself. If the murder of Abel had been a lighter matter, less heinous than the taking of Abel's life, Cain would probably have made due apology to his harmed brother and learned the lesson thousands of right minded, though not insane, have learned and practiced since, that a rational self restraint of evil inclinations, propensities and passions is a wise and conservative law of human action.

The regulation of human passion into right directions and for right results is the puzzle and purpose of all right self and social government.



DRS. PETTEY AND WALLACE'S SANITARIUM for the treatment of alcohol and drug addiction and mental and nervous diseases at Memphis, Tenn. is soon to have a new and commodious addition to its present excellent quarters.

THE NATIONAL MEDICAL ASSOCIATION, (Colored) which met in Raleigh, N. C. and adjourned to meet in Chicago in 1915, is reported to have had a scientifically profitable and socially pleasant meeting.

Dr. Frank S. Hargrave of Wilson, N. C., was elected president; Dr. R. C. Brown, Richmond, Va, Vice-President; Dr. Walter G. Alexander, Orange, N. J., Secretary; Dr. G. R. Ferguson, Charleston, S. C., Asst. Secy; and Dr. J. R. Levy, Florence, S. C., Treasurer.

THE HENRY PHIPPS PSYCHIATRIC CLINIC AT JOHNS HOPKINS HOSPITAL.—Sir William Osler in his farewell address on leaving Johns Hopkins University proclaimed the need of a psychiatric hospital in connection with a medical school. The editor of this magazine, while superintendent of the Missouri State Lunatic Asylum (as it was then called, but now called Hospital for the Insane, No. 1) in an address before the Missouri State Medical Association, assembled at Kansas City in the early days of the seventies, asked for the teaching of psychiatry in medical schools and taught the subject clinically and didactically in connection with the then St. Louis Medical College, now merged into the Medical Dept. of the Washington University of St. Louis.

Dr. Benjamin Rush in his lectures taught psychiatry a century ago in Philadelphia.

But this most important subject has lately taken more substantial practical and permanent form in the recent founding of the Henry Phipps Psychiatric Clinic in connection with the Johns Hopkins Hospital of Baltimore, Md. A great and timely advance endowment of this generous donor.



AMPLE REST AND MODERATE CONGENIAL WORK in the psychophysical therapeutics of insanity and the neuroses should be reciprocal. They have been recognized as essential features of curative treatment in certain neuroses for many years and in most of the best conducted hospitals for the insane and nervous in this country, as long enforced rest in bed is for other cases in European hospitals. We saw some good results of long in bed out in Budapest where there is much unrest just now outside of her hospitals for the insane.

THE NEXT MEETING OF THE AMERICAN ACADEMY OF MEDICINE is to be held in San Francisco. The last meeting at Atlantic City was a profitable and successful one. Likewise as to the A. M. A. Dates of meetings not yet determined upon.

AN ANESTHESIA SUPPLEMENT.—The American Journal of Surgery began with the October issue, the publishing of a 32 page supplement devoted exclusively to Anesthesia and Analgesia.

TWILIGHT ANAESTHESIA (Dammerschlaf) so called, i. e., transient unconsciousness medicinally induced by Scopolamin-morphia or similar treatment with all internal noninhalent therapeusis, is not new. A better plan of medicinally ministered anaesthesia having been practiced by American obstetricians half a century ago.

It was the habit of the editor of this magazine, in his early surgical and obstetric practice to administer a minimum dose of morphia ( $\frac{1}{4}$  gr.) before the beginning of an operation or labor, later followed by a medium dose of chloral, in the army, when no assistance was at hand.

In midwifery cases a fourth grain of morphia in the first stage and twenty-five or thirty-five of chloral hydrate in the second stage acted admirably in obtunding sensibility to shock. Neither the morphia nor the chloral was repeated during the same operation or labor and no untoward result followed.

We give this for the benefit of our country practitioner readers who have so often to bring on partial anaesthesia without the aid of an expert anaesthetist.

Apropos of this so-called Frieberg method, Dr. H. G. Webster of this Frieberg method or method having a similar object in labor, says in his Long Island Medical Journal editorially:

"The artificial control of labor is nothing new. In civilized lands partial chloroform anaesthesia has been generally practiced since Sir James Y. Simpson introduced it in Edinburgh in 1847, and the use of an infusion of poppy and mandragora is mentioned in the earliest works of medicine. Chloral and morphine have at one time or another been widely advocated."

BATTLEFIELD MEDICAL AMENITIES.—"At Chalons-sur-Marne," records a Leslie correspondent, "the French captured a German Red Cross hospital which had both French and German wounded in it. It was in charge of one of the most distinguished physicians of Germany; and the arrangements were so perfect that the French did not even change the staff, but let the German doctors and nurses go right on with their work."

NOW IS THE TIME for America to push to the front its excellent mineral waters, as good as most of the foreign articles.

We acknowledge the receipt of samples of Pluto, Abilena and other native mineral waters.

GERMAN ARMY MEDICAL STAFF LOSSES in the present European war as shown up to Oct. 21st is 74 killed, 37 wounded, 13 missing, 8 died of illness, 3 captured.

The Austrian losses in this branch have been 8 killed, 25 wounded, 1 missing and 25 ill.

Of the German medical staff in 1870, 66 men died. Nine were killed, 2 died of wounds and 55 of illness. The loss is greater than it was in 1870.

THE UNSANITARY TACTICS OF CONTINUOUS TRENCH FIGHTING night and day, fighting in the flat wet soil of Belgium, is liable to exhaust and hasten the end as much as the exceptionally murderous weapons and expenditure of ammunition in the unhallowed and inane conflict now going on in Europe. Disease and over fatigue decimate as well as deadly weapons of war.

THE AMERICAN MEDICAL ASSOCIATION will probably hold its 1915 sessions at the exposition, although definite action is yet to be taken. It will be at least represented in the Palace of Social Science by a valuable exhibit covering the work of the Association in educational and legislative work, particularly looking to the elimination of quacks and fake medical schools and adulterated and fake medicines and drugs.

SURGEON-GENERAL U. C. VETS.—General Bennett H. Young, Commander-in-Chief of the U. C. V., has appointed Dr. Joel C. Hall, of Anguilla, Miss., to succeed to the vacancy occasioned by the death of the late Surgeon-General, Dr. C. H. Tebault, of New Orleans, La.

An estimable appointment, says the Southern Practitioner.

DR. HUGH T. PATRICK, Chicago, has removed his office to 25 East Washington Street, Suite 1809.

DOCTOR.—If you have women in your family or women friends anywhere whom you may wish to favor with a gift of good reading matter, two dollars added to your subscription check for the *Alienist and Neurologist* will bring them "the Woman's trio" namely: "Pictorial Review" (Fashions,) "Modern Priscilla" (Fancywork,) and "Ladies World" (Household,) publisher's price \$4.20, at a cost to you of \$2.00.

## SELECTED CORRESPONDENCE

PRESIDENT LOWELL ON HIGH STANDARDS IN MEDICAL EDUCATION:—

In the Journal of the American Medical Association, March 14, 1914, is a most comprehensive and sound article by A. Lawrence Lowell, president of Harvard University. The title of this article is "The Danger to the Maintenance of High Standards from Excessive Formalism."

Not in years has anyone spoken more truth and in so sane a manner as President Lowell. He shows how the trend of modern medical education is on a machine basis. So much raw material put through the same process in the same time and great results expected. Particularly is this true as to preliminary education, preparatory to the study of medicine. He points out, that superior intellect must ever be present, in order to get the best results in medical education. President Lowell is trying to save medical education from the folly of the organized medical politicians; from organized commercialism as represented by some of the heavily endowed university schools. He would have the admission of students to the study of medicine based on a personal exhibition of sound intellect rather than a pocket full of certificates of courses ground out under the task-masters styled "tutors," (tooters would be nearer the mark.)

The discussion of President Lowell's address, by Prof. Victor C. Vaughan of the University of Michigan is a characteristic evasion of the whole subject. President Lowell did not decry high preliminary standards, but the totally inefficient method of gauging those standards.

Suppose, as Prof. Vaughan says, that "the professor of pathology of the University of Michigan, College of Medicine and Surgery, requires that students read Ziegler in German." It does not follow that one out of twenty of the students reads understandingly or profitably. Ziegler is not the only work on pathology, nor is it impossible to get a good translation of Ziegler. Perhaps the professor says his prayers in German. Irish would be just as effective. From our observation we had come to think that the above mentioned professor of pathology spent much of his time teaching students the correct "fiddle bow" motion of a long knife in detaching the intestine from the mesentery, at autopsy. If the professor would visit the rural districts near at hand to him, in pig killing time, he would find some women who could beat him taking the "gut lard."

We once knew of a university medical school with an enrollment of more than five hundred students. In some years the autopsies did not average much over one a month. Not much French or German required for that amount of pathology. This same school had no professor of genito-urinary surgery, no professor of diseases of children, no professor of orthopedic surgery, no professor of rectal diseases and only one-third enough faculty members for the chairs represented. No amount of preliminary training could overcome any such handicap as that. We have not learned that the situation is much if any better with that school today.

We owe President Lowell a debt of gratitude for his timely article and the moral courage to read it.

(Selected.)

E. H. S.

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## CORRESPONDENCE

COURSE OF PERFECTIONMENT AT THE PSYCHIATRIC CLINIC OF MUNICH, 1915—From Monday the 15, II. to Saturday the 6, III., 1915, a course of perfectionment shall be held at the psychiatric clinic of Munich. The following lectures shall be given:

ALLERS: Chemical pathology and dietic treatment of psychoses.

BRODMANN-TUBINGEN: Topographical histology of the cortex.

ISSERLIN: 1.) Experimental psychology. 2.) Psychotherapy.

KRAEPELIN: Psychiatric clinic.

PLAUT: Examination of cerebrospinal liquor and of the serum.

RUDIN: 1.) Demonstrations in forensic psychiatry and juvenile criminality. 2.) On degeneracy and heredity of mental diseases.

SPIELMEYER: (1. The anatomical bases of mental disease. 2.) On aphasic, agnostic and apratic disturbances.

TRENDELENBURG-INNSBRUCK: Physiology of the brain.

WEILER: Methods of psychopathological examination.

Number of the hours: 100. Fee M. 63.

The exact disposition is to be published later.

Apply to M. Privatdozent, Dr. E. Rudin, Oberarzt, Nussbaumstrasse 7, Munich.



## REVIEWS, BOOK NOTICES, REPRINTS, ETC.

TRAITE CLINIQUE ET MEDICO-LEGAL DES TROUBLES Psychiques et Nervosiques, Post-Traumatiques, par R. Benon, Ancien interne de la Cliniques des Maladies Mentales et de l'Encephale, a la Faculte de Paris. Medecin de l'Hospice General de Nantes (Quartiers d'Hospice) Paris, G. Steinheil, Editeur, 2, Rue Casimir-Delavigne, 2.

This book is a classic of psychiatric fact, conclusion and reference, especially for the surgeon who would diligently look for and understand the sequellae of injuries as they affect the mind and allied nervous system.

The author goes back in his quotations to Hippocrates and comes on forward to the present day in his references, including Bruyset, Rousseau and Desault in the 18th; Dupeytren, Bayle, Koempfen, Fuchs, Esquirol, Lesigue, Slager, Griesinger, Erichsen, Schaefer, Gaupp, Krafft-Ebing, Ooenheim, Charcot, Oppenheim and others in the 19th Century; continuing with Kahlberlah, Richardson, Meyer, Gordon, Viendez, Mondio, Brissard, Veraguth and Gloetta, Lamb and others in our era.

The following quoted paragraph from page 8 of the author's preface will give an idea of the gist of this valuable book:

"La psychiatrie, pathologic des sensations, des idees et surtout pathologie des emotions et des passions, peut prendre son droit essor vers la cite vivante. Son domaine est plus vaste au dehors qu'au dedans des asiles puisqu'il est possible d'ecrir: tout maladie qui ne s'accompagne pas de signe somatique est d'ordre psychiatrique."

The author concludes with indications for trephining.

THE CHEMIC PROBLEM IN NUTRITION (Magnesium Infiltration.) A Sketch of the Causative Factors in Disorders of Nutrition as Related to Diseases of the Nervous System by John Aulde, M. D., Formerly Asst. Physician patient dept. Jeff. Med. Col. Hospital; Dem. Phys. Diag. and Clin. Med. Medico-Chirurg. Col. Author of "The Pocket Pharmacy," "Diet for Health," "Cellular Therapeutics," etc., etc. Illustrated with four plates. Published by the author at Philadelphia.

The author records many nervous diseases caused, he conceives, by magnesium infiltration (short-cutting, as he explains) including infantile paralysis, old age and neurasthenia. The latter he says is rare in men as compared with women (which we regard as a mistake) and in old age he regards atheroma as proceeding from vascular magnesium degeneration and the latter being complicated in the aged with calcareous infiltration of the vessels.

The author includes in his theory of magnesium infiltration causation, chorea, neuritis, heart failure, insanity, idiocy and other conditions and gives his treatment which he pronounces in the main successful.

The most interesting plates in the book are a series representing the deterioration in pea seedlings incident to magnesium nitrate—in solution—with the antifotal action of calcium and the showing by contrast the effects of magnesium and calcium on pea seedlings in solutions of equal strength; also the effect of distilled water, by comparison.

He considers magnesium infiltration to be an insulation process (p. 110) modifying the electric conductivity of the tissues as pointed out in chorea and insomnia.

Invading the vaso-motor nerves there is contraction or increased tension of the arteries and high blood pressure leading to apoplexy, paralysis and heart failure.

But the reader must read more than we have space to record concerning this book and the author's theoretic and plausible conception of the *modus operandi morborum nervosi systemate* as this author sees its wondrous movements.

HANDBOOK OF THE MENTAL HYGIENE MOVEMENT AND EXHIBIT.—Illustrated. Published by the National Committee for Mental Hygiene, 50 Union Square, New York City, 1913. Price at exhibits 15c, postpaid 20c. Publication number 5 is before us.

This committee has instituted, in our judgment, the greatest and most eugenic and scientifically patriotic movement of our day and generation. We exclude foreign defectives from our Nation's portals, we corral and house our insane alone at home, at an annual expense, as this comprehensive report shows, about equal to the yearly cost of the construction of the Panama canal. But this canal is about finished while this maintenance cost of our human defectives goes on forever and yet only about ten per cent of the mentally defectives in the United States are under suitable institutional care. The British Royal Commission makes, this report says, about the same estimate.

This excellent report is comprehensive both in text and convincing illustration and should awaken the patriotic and philanthropic to wider activity for the stemming of the tide of degeneracy and mental degradation now threatening to engulf the land.

The contrasting pictures this report gives us of the county insane department of most of our alms-houses and hospitals for the insane should lead to saving activity of our legislatures.

This handbook is a very *Multum in Parvo* of convincing, enlightening information for the physician and philanthropist in text and illustration.

We shall recur to it again when more space shall be at our disposal.

The contrast pictures of idleness and occupation of county asylum and state hospital and of restraint and non-restraint, almshouse and hospital housing of insane patients, the picture of Pinel striking the shackles from the lunatics of Salpetriere, the family record of the Kalikak, the plate of causes of mental deficiency, the showing of imperfect adjustments in children, of structure

changes caused by alcohol and syphilis in mental diseases, of structural changes in mental diseases, are convincing and enlightening and confirm the supreme necessity for this great mental hygiene movement. The faces of Miss Dix, of Rush and Griesinger, adorn the pages of this report, the Pennsylvania hospital and the Phipps clinic for psychiatry building and grounds also embellish them.

But why not also the Tukes of England and Chiarugi of Italy, Kirkbride and the old Friend's Retreat of Philadelphia? But we shall touch again upon this important subject so vital to humanity and our country.

A NOTABLE WORK ON BIOLOGICAL THERAPEUTICS.—A book of uncommon interest and value to physicians has just been issued from the press of Parke, Davis & Co. It is a new "Manual of Biological Therapeutics," receipt of a copy of which is hereby acknowledged by the editor of this journal. The book is handsomely printed in large, clear type, on heavy enameled paper, and bound in cloth. It contains 174 pages of text, upwards of thirty full-page plates in color, and a number of half-tone illustrations in black and white, together with a comprehensive index. As its title suggests, it is a concise and practical treatise on biological therapeutics, and so replete with useful information that no practitioner should miss the opportunity to secure a copy, especially in view of the fact that the publishers announce that the entire edition is to be distributed gratuitously to members of the medical profession, on individual application.

Something of the scope and value of the work may be inferred from this incomplete list of the subjects treated: Biology, Bacteria, Immunity, The Preparation and Uses of Sera, Antidiphtheric Serum, Concentrated Diphtheria Antitoxin, Allergic Reactions, Antitetanic Serum and Globulins, Antigonococcic Serum, Antimeningitic Serum, Antistreptococcic Serum, Bacterial Vaccines or Bacterins, The Opsonic Index and description of method of taking it, When Serums should be used and when Bacterial

Vaccines are to be preferred, The various Bacterins and their Indications, Smallpox Vaccine, Pasteur Antirabic Vaccine, The Diagnosis of Typhoid Fever, The Agglutination Test without a Microscope, The Agglutometer, Ehrlich's Diazo-Reaction in Typhoid Fever, Gonococcus Antigen, The Wassermann Reaction, Coley's Mixture, Coagulose or Hemostatic Ferment, Bacillus Lactis Bulgaricus, Phylacogens, their Preparation and Mode of Use, Mixed Infection Phylacogen, Pneumonia Phylacogen, Gonorrhea Phylacogen, Erysipelas Phylacogen, Rheumatism Phylacogen, Typhoid Phylacogen, Tuberculins in Diagnosis and Treatment, Organotherapy, Thyreoidectin and Thyroprotein, Thyroid and Thymus Glands, Adrenalin and Pituitrin, Corpora Lutea, The Biological Farm and the Research Laboratory.

To our physician friends we suggest the propriety of writing at once for a copy of this "Manual of Biological Therapeutics," addressing the request to Parke, Davis & Co. at their home office in Detroit, Michigan. It will not be amiss to mention this journal in writing.

THE WORLD'S LEADING BOOKS ON SEX KNOWLEDGE  
By Dr. E. B. Lowry.—These notable books give complete sex truths in a clear straightforward manner and lead to health, happiness and success.

Dr. Lowry's books are regarded as the best books on sexual hygiene by the foremost medical, educational and church authorities, and all organizations interested in human welfare. We fully endorse the publisher's estimate.

These valuable books are "Herself," talks with women concerning themselves; "Himself," talks with men concerning themselves. Prices of these two, \$1.00 each net; by mail \$1.10. "False Modesty," that protects vice by ignorance. Price of this book is fifty cents net; by mail fifty-five cents. "Confidences," talks with a girl concerning herself. "Truths," talks with a boy concerning himself.



We join also with the many other periodicals in commending these good books. There are none better of their kind. The price of the last three named is fifty cents net. All cloth bound.

"False Modesty" is especially as the publishers say, "The most thorough and convincing appeal ever made for the proper education of the young in matters pertaining to sexual hygiene by the foremost writer on the subject." A book of vital, helpful interest to every parent, teacher, physician and minister.

THE PSYCHOANALYTIC DELUSION.—A Criticism and Review by J. Victor Haberman, A.B., M.D., D.M., (Berlin) of New York. Instructor in Neurology and Psychopathology, College of P. and S., Columbia University. Asst. Neurol. Vanderbilt Clinic.

As this interesting paper is copyrighted we can only give the author's attitude in a few of his critical paragraphs, as they here follow:

"Rarely has a subject ever been presented to us (in America) with a greater paucity of sober fact and proof than this of the Freudian theories. Nowhere are careful case-studies presented, nowhere an endeavor made to substantiate with real evidence. In the way of authorities these writers for the most part refer to one another even though none is recognized as an authority in anything, and the majority could have had but limited neurological experience. Nowhere does one meet with caution or forethought, with the use of words like 'hypothesis,' or 'supposition of Freud,' but everywhere with a grandiloquence of assumption which admits of no doubt."

The author gives two entire pages of references at the end of this interesting agnostic review of Freudianism. He also quotes from C. B. Burr, "It contains so little, and so much error, that it is useless, more than that, it is harmful," and concludes thus.

With "the words of Oliver Wendell Holmes writing of kindred delusions in his own day, 'a rich illustration of the pretentions, the arguments, the patronage, by



means of which windy errors have long been, and will long continue to be, swollen into transient consequence.' "

This paper is well worth reading by the thoughtful Alienist and Neurologist.

ONE OF LEA AND FEBIGER'S MEDICAL EPITOME SERIES, "Nervous and Mental Diseases" is a small Manual for Students and Practitioners by Joseph Darwin Nagel, M. D., Consulting Physician to the French Hospital of New York; Member of the New York Academy of Medicine; Hon. Mem. Soc. Roy. of Belgium, etc., which has reached its second edition. Thoroughly revised. It includes an appendix on Insomnia and a selected list of State Board examination questions and is illustrated with 50 engravings and a colored plate. Philadelphia and New York .

The student and practitioner can carry this little book in the coat pocket for ready reference and be much benefited thereby because of the condensed and correct ready reference matter it contains.

This book among other distinguishing features presents the Wasserman test by test tube illustration (positive and negative) as well as context, the physiognomy of hereditary chorea in the fifth year of the disease and the cerebral area of leptomeningitis in progressive choreic tic, and other striking plates. The book and its author are trustworthy.

With no attempt to usurp the place of larger works the author has prepared this little book "to give the student the essence of the subject" for "quick review" of necessary facts.

"EXCEEDING FINE."—There are a good many good things in "Cottrell's Magazine" besides the advertisement of Cottrell and Sons printing presses, etc., for instance:

"A lot of supposed good writers are in reality just good readers. "

"Science is a transitory belief based on circumstantial evidence."

"Some of us have all our goods in the show window, while others keep them unpacked in the basement."

"The reason this fellow is shy on a living is the fact that he takes more pride in an exclusive accomplishment than one that is useful, while the reason that it is exclusive is that it is useless."

"His weakness is the result of the Old Greek Academy idea of education—which still predominates a very large part of our educational system here in American public schools, and which is that of the education for pure culture, that the more useless the knowledge the more useful for educational purposes."

This latter is not quite accurate, a certain amount of classical knowledge can be turned to good account, especially by the medical student and physician in clearly comprehending the full meaning of most of our medical terms as well as some of the old Greek and Latin physician writers. The literary classical old masters may be later mastered during the leisure hours of the young doctor's waiting for practice.

TO THE FRONT IN EUROPE'S WAR is a photographic review of the equipping and loading of the steamship "Red Cross" and her departure from New York.

This interesting illustrated pamphlet comes to us with the compliments of Bauer and Black of Chicago and New York. It is a piece of advertising, showing the Red Cross ship, workers, supplies and work being done preparatory to the departure of the good ship on its humane mission. A group of nurses and surgeons are also shown.

With its military type of organization, the American Red Cross in the United States, was able to turn instantly from its daily work of instruction in the first aid among the industries of a peaceful country and, without confusion or excitement, charter the ship "Red Cross," load her with the best of surgical dressings and other supplies, secure from the leading hospitals of the country

a full complement of nurses and surgeons and clear for European ports in an incredibly short time.

How this work was accomplished is shown by the illustrations.

THE JUNE 30TH REPORT OF THE INSTITUTION QUARTERLY, Volume 5, Number 2, is before us, the best and most timely feature of which is the State Psychopathic Institute report of which Dr. H. Douglas Singer is Director. This Institution is located at Kankakee, Ills. And this is saying nothing to the disparagement of the splendid work of executive Secretary Bowen of this excellent commission or of President Kern's equally good contribution. In fact the entire report gives valuable information from professional sources of expert observation and from statistics showing the good work done by the Public Charity (especially medical) Service of Illinois and other States entertaining and instructive to the physician and philanthropist.

DIAGNOSTIC SYMPTOMS IN NERVOUS DISEASES by Edward Livingston Hunt, M. D., Instructor in Neurology and Asst. Chief of Clinic, College of P. and S., the Medical Department of Columbia University, in New York City; Associate Consulting Neurologist to St. Lukes Hospital, etc., etc. Illustrated. Printed in America. Press of W. B. Saunders Company, Philadelphia.

The author's students having asked him for several years to name a book in which they could find the salient points and leading symptoms of the principal nervous diseases without the laborious search involved in consulting the larger text books, this book is written to supply such a demand. It is intended for the student, interne and general practitioner, both as a reference and an aid in diagnosis.

The illustrations, nearly all of which are original, were taken from patients in the author's service in the Central and Neurological Hospital of New York City.

For the help in obtaining them he is indebted to Dr. Thomas H. Price.

Credit is also given to Dr. Thaddeus H. Ames for valuable assistance in the preparation of the book.

THE RELATION OF SIGHT AND HEARING TO EARLY SCHOOL LIFE by Guy L. Noyes, Act. Dean of Fac. of Med. and formerly Prof. of Eye and Ear Disease U. of Mo. The University of Missouri Bulletin, Vol. 15. No. 3, Medical Series 5.

This number includes refractions and troubles of hearing including adenoids. Any one or all of this series may be had gratis for the asking. Address the Department of Medicine, University of Missouri.

An excellent technique of inspection with Allport's modification of Snellen's charts is also given in this pamphlet.

THE TRAINING SCHOOL BULLETIN is devoted to those whose minds have not developed normally.

This magazine will interest all psychiatrists and should be on the library shelves and tables of the latter along with the Alienist and Neurologist. Their work is in line with clinical psychiatry and psychotherapy should be blended with training for them. They should be kept up to normal in their physical functions, nutrition and sleep.

PREVENTIVE MEDICINE, U. M.—The University of Missouri has established, in connection with the Department of Preventive Medicine, a bureau of information which will upon request furnish practical information regarding the prevention of disease. A laboratory is also provided, the service of which is free. Address Preventive Medicine, University of Missouri, Columbia, Mo.

DEPARTMENT OF THE INTERIOR, Bureau of Mines, Jos. A. Holmes, Director, sends us an interesting illustrated paper bound book on the "Origin of Coal" by David

White and Reinhardt Thiessen, with a chapter on the formation of peat by Charles A. Davis, which is good reading for anybody but especially for the hospital, libraries of sanitariums, etc., and the many institutions to which this magazine goes.

This department of the Government is doing especially good research work in this and other valuable research directions.

THE MOST RECENT REPORT from the Departments of Psychiatry and Pathology of the Central Indiana Hospital for the Insane of Indianapolis, Indiana, under date of September first, 1914, is a valuable addition to the volumes already issued.

The clinical lectures on psychiatry and neuropathology of this advanced institution are a meritorious feature of this advanced institution and its generally commendable work for the welfare of the insane and the enlightenment of the profession much to the credit of Dr. Edenharter, the Superintendent and his enthusiastic, enlightened and industrious medical staff, as well as to the up-to-date trustees.

This report and similar ones from like hospitals in the U. S. are sources of much enlightenment in psychiatry. This and similar reports ought to be read by all physicians.

WHAT IS PARANOIA?—By E. Stanley Abbot, M. D., Asst. Phy. McLean Hospital, Waverly, Mass. From Amer. Jour. Insanity.

A profitable inquiry and clear showing from a practical source of clinical observation.

Should we give all the space we should wish to, to our review department, we should have no room for anything else. We have been obliged to omit the elaborate notes we should desire to make, of the many excellent hospital reports which come to us regularly, but we can not carry out our wishes in this direction without unfair

discrimination in noticing them and without more page room.

These reports are in the main valuable contributions to practical psychiatry which ought to be sent more generally to the members of the medical profession and to those in legislative and executive places of authority and to the people. The insane and the feeble minded would fare better if this were done more extensively.

THE PERSONAL FACTOR in Association Reactions by Frederick Lyman Wells, McLean Hospital, Waverly, Mass., delivered at the opening of the Henry Phipps Psychiatric Clinic of the Johns Hopkins Hospital, Baltimore, Md., April 16-18, 1914.

A timely theme well presented and germane to psychologic and psycho-diagnostic consideration in psychiatry and neurology.

THE VALUE OF THE LIBRARY in the Hospital for Mental Diseases by Edith Kathleen Jones, Librarian at McLean Hospital, Waverly. From Maryland Psychiatric Quarterly.

A good subject for discussion, well presented by one who knows and has opportunity for knowing well.

ATYPICAL MULTIPLE SCLEROSIS: Atypical Epilepsy; Cerebral Syphilis with Motor Aphasia and Right-Sided Hemiplegia; Cerebral Syphilis with Left-Sided Hemiplegia. —A clinical lecture by L. Harrison Mettler, A. M., M. D., Professor of Clinical Neurology in the College of Medicine of the University of Illinois, Chicago.

All interesting cases.

INSANITY OCCURRING IN LATENT BRIGHT'S DISEASE.—With report of three cases. By G. W. McCaskey, A.M., M.D., Fort Wayne, Ind. Professor of Medicine, Indiana University School of Medicine. From the New York Medical Journal for January 21, 1914.



GONOCOCCI AS THEY APPEAR UNDER THE MICROSCOPE.—Professor Neisser at Breslau in 1879 identified the germ of gonorrhea and named it the gonococcus.

THE RELATION OF THE MEDICAL PROFESSION TO ACCIDENT INSURANCE.—By W. Edward Magruder, M.D., Baltimore, Md. Reprint from the Southern Medical Journal. Read by title in Section on Surgery of the Southern Medical Association, Lexington, Ky., Nov. 17-20, 1913.

A contribution of good practical medical suggestion for medical insurance examination purposes.

VOICE AND MANNERS IN MEDICAL PRACTICE.—By T. D. Crothers, M. D., Hartford, Connecticut.

This interesting brochure begins thus:

"The president of a great university, when asked why it was that some of his teachers showed such irregularities of thought and manner, replied, 'cultured men are abundant, but gentlemen with cultured manners, trained voices, and common sense are very rare.'"

And this is true of many others than physicians. Dr. Crothers' theme is an interesting one, forcefully treated on the psychic side of clinical medicine and psychiatry is an important matter in all successful therapy. We commend this paper and its important subject to all medical practitioners. Its psychiatry is to medicine what manners and modes of speech are to oratory.

PNEUMONIC HEMIPLEGIAS—By Charles F. Withington, M. D., Boston, Mass. From American Journal of Medical Sciences, February, 1914, No. 2.

This is a searching analysis of the subject instructive to neurology from the preliminary medicine view.

THE SIGNIFICANCE OF INTRA-ABDOMINAL "BANDS," "FOLDS" AND "VEILS."—By William Seaman Bainbridge, A.M., Sc.D., M.D., New York. From the Boston Medical and Surgical Journal.

When Dr. Bainbridge first began, "about eight years ago, to study the various bands, folds, membranes and other adventitious structures found within the abdomen, and to consider the relationship of these to chronic intestinal stasis, little heed was paid by the general body of the medical profession to this field of investigation, in which Sir Arbuthnot Lane, of London, is unquestionably the pioneer."

And we have watched with equally keen pleasure with Dr. Bainbridge the now awakening interest especially through Dr. Bainbridge's other valuable contributions on chronic intestinal stasis surgically as well as medically considered.

ENTEROPTOSIA ("ENTEROPTOSIS") AND ITS TREATMENT by Means of the Plaster Belt.—By Dr. A. Rose, New York.

This is the author's corrected term for the current inaccurate word "enteroptosis."

This little treatise is Dr. Rose's view of the subject and it is a characteristically accurate presentation of his theme. Accompanying this is a two and a half page list of suggested corrections of words found in current medical literature from the Greek by Dr. Rose in his preface to the eighth edition of Roth's Medical Lexicon, issued at Leipzig, 1914.

UNIFORMITY IN DOSAGE OF RADIUM EMANATION.—By Wm. Jay Schieffelin, Ph. D. Read at the Annual Meeting of the American Pharmaceutical Association, Detroit, Michigan, August 25, 1914.

A good paper worthy the attention of all practicing physicians.

PROFESSOR CATTELL'S RELATION TO THE ASSOCIATION METHOD.—F. Lyman Wells. From Columbia Contributions to Philosophy and Psychology.







